# بیرکاری

## بۆ پۆلی شەشەمی سەرەتایی

ژمارەی سپاردن (١١٨) ساڵی ٢٠٠١ ز

تیراژ (٣,٠٠٠) دانە

٢٠٠٢ زایینی ٢٧٠٢ کوردی ٦٧٥٢ ئاشوری

چاپخانەی وەزارەتی پەروەردە / هەولێر



هەرێمی کوردستانی عیراق

وەزارەتی پەروەردە

ܡܠܟܐ ܕܟܘܪܕܣܬܢ - ܥܝܪܩ

ܘܙܝܪܘܬ ܕܬܪܒܝܬܐ

# ܩܪܝܢܘܬܐ

## ܣܦܪܐ ܬܠܝܬܝܐ ܣܘܪܝܝܐ

[illegible] :

[illegible]

[illegible]

[illegible]　　[illegible]

چاپی یەکەم ٢٠٠٢ زایینی - ٢٧٠٢ کوردی - ٦٧٥٢ أ

چاپخانەی وەزارەتی پەروەردە - هەولێر

سەرپەرشتی چاپ

اندریوس یوخنا کورکیس    نادر موشی مراد

# ܦܣܩܐ ܩܕܡܝܐ
## ܡܫܘܚܬܐ ܘܦܘܠܚܢܬܐ

[ ١ ـ ١ ] ܝܘܩܕܐ ܕܡܫܘܚܬܐ

[ ١ ـ ٢ ] ܦܫܬܠܬܐ ܕܡܫܘܚܬܐ

[ ١ ـ ٣ ] ܡܫܘܚܬܐ ܦܫܝܛܬܐ

[ ١ ـ ٤ ] ܡܫܘܚܬܐ ܡܪܟܒܬܐ

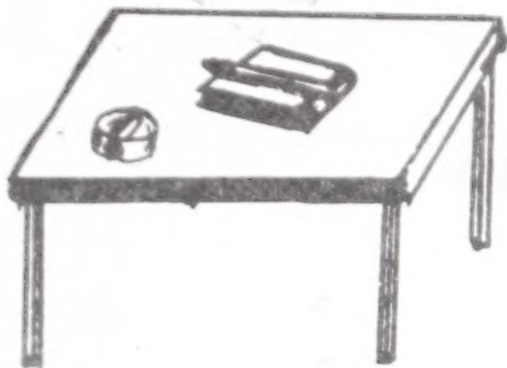
[ ١ ـ ٥ ] ܚܘܫܒܬܐ ܕܡܫܘܚܬܐ

[ ١ ـ ٦ ] ܡܫܚܠܦܬܐ ܕܡܫܘܚܬܐ

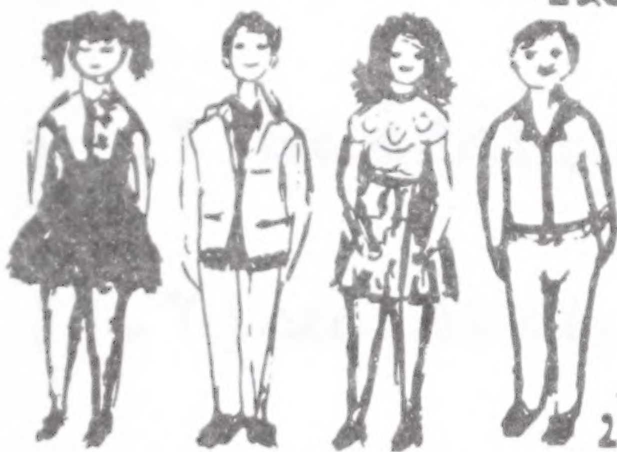
[ ١ ـ ٧ ] ܚܘܒܪܐ ܕܡܫܘܚܬܐ

# ܦܣܩܐ ܩܕܡܝܐ

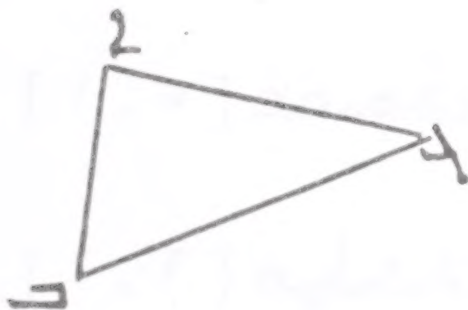
## ١ - ١ ܢܘܗܪܐ ܕܟܢܘܫܝܬܐ



* ܟܬܒܐ ، ܩܢܝܐ ، ܡܣܪܝܩܝܬܐ ، ܕܠܗ
ܐܣܝܡܐ ܡܬܕܪܝܢ ܟܢܘܫܝܐ ܡܢ ܡܐܢܝܐ :
ܐܗܐ ܟܢܘܫܝܐ ܦܝܫ ܡܫܡܐ ܟܢܘܫܝܬܐ .



* ܢܝܢܘܣ ، ܝܥܩܘܒ ، ܡܪܓܪܝܬ ، ܫܠܝܡ
ܡܬܕܪܝܢ ܟܢܘܫܝܬܐ ܕܥܡܝܐ ܕܪܕܝܐ ܕܟܬܘܒܬܐ .
ܟܠ ܪܕܝܐ ܦܝܫ ܡܫܡܐ ܐܣܛܘܟܣܐ ܠܗ ܟܢܘܫܝܬܐ
، ܗܐ ܠܡܘܬܐ ܡܪܓܪܝܬ ܝܠܗ ܐܣܛܘܟܣܐ ܡܢ
ܐܣܛܘܟܣܐ ܕܪܕܝܐ ܕܐܗܐ ܟܬܘܒܬܐ .
ܢܝܢܘܣ ܝܥܩܘܒ ܡܪܓܪܝܬ ܫܠܝܡ




* ܦܣܩܬܐ ܣܛܪܐ ܒܐܣܛܘܟܣܐ ܐ ܒ ، ܒ ܓ ، ܓ ܐ
، ܡܬܕܪܝܢ ܟܢܘܫܝܐ ܡܢ ܦܣܩܬܐ ܣܛܪܐ ܝܢܐ ܟܢܘܫܝܐ
ܕܐܠܦܐ ܕܡܬܠܬܐ ܐ ܒ ܓ .

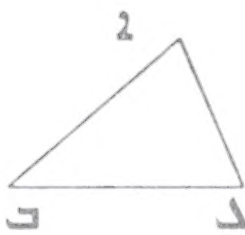
* ܬܠܡܝܕܐ ܕܣܕܪܐ ܡܬܕܪܝܢ ܟܢܘܫܝܬܐ ،
ܟܠ ܬܠܡܝܕܐ ܒܗܐ ܣܕܪܐ ܝܠܗ ܐܣܛܘܟܣܐ
ܡܢ ܐܣܛܘܟܣܐ ܕܐܗܐ ܟܢܘܫܝܬܐ .
ܚܘܝܐ ܗܘܝܐ :
ܟܢܘܫܝܬܐ ܬܪܬܐ ܡܢ ܐܣܛܘܟܣܐ . ܐܢܝ ܐܣܛܘܟܣܐ ܡܨܝܐ ܕܗܘܝ ܒܪܢܫܐ ܐܘ
ܚܝܘܬܐ ܐܘ ܡܢܝܢܐ ܐܘ ܐܬܘܬܐ ܐܘ ܢܘܩܙܐ ܐܘ ܦܣܩܬܐ ، ܐܘ ܟܠ ܡܕܡ .
ܠܡܘܬܐ ( ١ ) : ܟܢܘܫܝܬܐ ܕܡܢܝܢܐ ܕܡܢܝܢܐ ٦ ، ܐܣܛܘܟܣܐ ١ ، ٢ ، ٣ ، ٦
ܠܡܘܬܐ ( ٢ ) : ܟܢܘܫܝܬܐ ܕܠܘܢܐ ܕܐܬܐ ܕܥܒܪܐ ܐܣܛܘܟܣܐ ܝܢܐ :
ܣܡܘܩܐ ، ܚܘܪܐ ، ܝܘܪܩܐ ، ܟܘܟܒܐ .

## ܕܘܪ̈ܫܐ ( ١ - ١ )

١ - ܕܟܘܪ ܐܣܛܘܟܣ̈ܐ ܕܫܡ̈ܗܐ ܕܡܠܦ̈ܢܐ ܘܡܠܦܢܝܬ̈ܐ ܒܡܕܪܫܬܟܘܢ .

٢ - ܡܢ ܐܢܝܢ ܐܣܛܘܟܣ̈ܐ ܕܝܪ̈ܚܐ ܕܫܢܬܐ ܕܝܘܡ̈ܝܗܘܢ ٣٠ ܝܘܡܐ ؟ .

٣ - ܟܬܘܒ ܐܣܛܘܟܣ̈ܐ ܕܟܢܘܫܬܐ ܕܡܢܝܢ̈ܐ ܕܙܥܘܪܝܢ ١٠ .

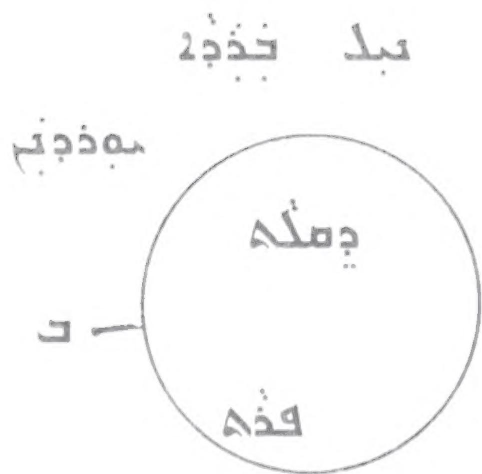



٤ - ܟܬܘܒ ܐܣܛܘܟܣ̈ܐ ܕܟܢܘܫܬܐ ܕܙܘܝ̈ܬܐ ܕܡܬܠܬܐ ܐ ܒ ܓ .

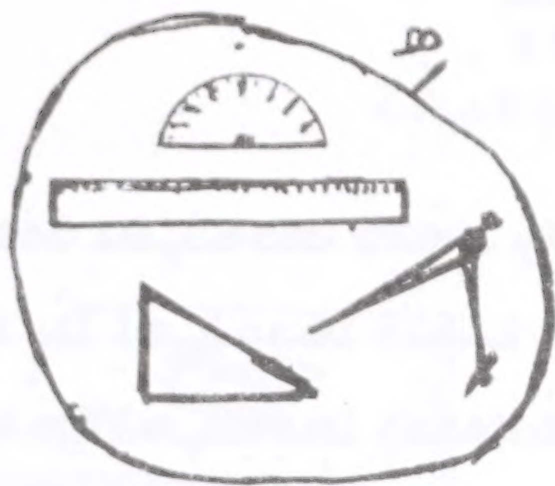
٥ - ܟܬܘܒ ܐܣܛܘܟܣ̈ܐ ܕܐܬܘ̈ܬܐ ܢܨܪ̈ܝܐ ܕܐܝܬܠܗܘܢ ܒܫܘܡܐ ܡܬܘܡܝܐ ܢܨܪ ܒܫܡܟ .

## ١ - ٢ ܡܢܝܢܘܬܐ ܕܟܢܘܫܬܐ

ܒܐܣܛܘܟܣܐ ܕܒܪܘܦܠ ܐܝܟ ܐܣܛܘܟܣܐ ܡܚܕܐ
ܘܡܬܩܪܝܠܗܘܢ ܟܢܘܫܬܐ ܕܡܢܝܢܘܬܐ ،
ܒܣܕܪܐ ܦܫܝܛܐ ܕܒܪܐ .
ܫܩܘܠ ܪܡܙ ܠܟܢܘܫܬܐ ܕܡܢܝܢܘܬܐ
ܒܐܬܘܬܐ ( ܐ ) ܗܢܐ ܘܕܝܢ
ܐ = ܟܢܘܫܬܐ ܕܡܢܝܢܘܬܐ
ܟܠ ܡܢܝܢܘܬܐ ܐܝܬܗ ܐܣܛܘܟܣܐ ܡܢ
ܐܣܛܘܟܣܐ ܕܟܢܘܫܬܐ ( ܐ ) .
ܚܘܕܪܐ ܠܐ ܐܝܬܗ ܡܢ ܐܣܛܘܟܣܐ ܕܟܢܘܫܬܐ ( ܐ ) .
ܡܬܝܚܐ ܠܐ ܐܝܬܗ ܐܣܛܘܟܣܐ ܕܟܢܘܫܬܐ ( ܐ ) .




* ܐܢܝ ܫܡ̈ܗܐ ܠܢܘܪ̈ܘܬܐ ܕܟܬܒܝ ܒܐܬܘܪ̈ܘܬܐ
ܢܨܪ̈ܝܐ ، ܫܩܘܠ ܗܘܝܐ ܒ ܪܡܙܐ ܠܟܢܘܫܬܐ
ܕܢܘܪܐ ܕܟܬܒܝ ܒܟܬܒܗ .
ܕܡܠܐ ܐܣܛܘܟܣܐ ܕܟܢܘܫܬܐ ܒ .
ܦܫܝܐ ܐܡܝܪܬܐ : ܕܡܠܐ ܡܬܝܢܐ ܠܟܢܘܫܬܐ ܒ
، ܗܘ ܕܒܪ ܦܪܐ ܡܬܝܢܐ ܠܟܢܘܫܬܐ ܒ







، ܚܕ ܠܐ ܡܗܝܢܐ ܠܟܢܘܫܬܐ ܒ .

* ܟܢܘܫܬܐ ܗ ܝܠܗ ܟܢܘܫܬܐ ܕܦܐܪܐ

ܦܣܐܪܐ ܠܗ ܠܡܒܕܐ .

ܣܢܦܠܝܬܐ ܡܗܝܢܬܐ ܠܟܢܘܫܬܐ ܗ

ܣܟܪܐ ܠܐ ܡܗܝܢܐ ܠܟܢܘܫܬܐ ܗ .

ܣܡܟܬܐ ܕܟܢܘܫܬܐ :

ܣܡܟܝܢ ܠܐܣܛܘܟܣܐ ܕܟܢܘܫܬܐ ܒܝܢ ܬܪܝܢ ܣܟܠܬܐ ܡܢ ܐܕܫܐ {    }

ܛܘܦܣܐ ( ٣ ) : ܟܢܘܫܬܐ ܕܐܡܗܐ ܕܫܢܬܐ = { ܐܒܒܐ ، ܦܝܫܐ ، ܝܬܪܐ ، ܦܬܘܐ } .

ܛܘܦܣܐ ( ٤ ) : ܟܢܘܫܬܐ ܕܐܬܪܘܬܐ ܢܪܬܝܐ ܫܒܝܒܐ ܥܡ ܥܝܪܩ = {ܣܘܪܝܐ ، ܝܘܪܕܢ ، ܟܘܝܬ}

ܛܘܦܣܐ ( ٥ ) : ܟܢܘܫܬܐ ܕܐܡܗܐ ܡܫܪܝܐ ܠܐܡܢܐ ܕܡܢܝܢܐ ٣٣٥٤ = { ٣ ، ٥ ، ٤ } ܣܘܝܣ ܕܟܠܗ ܗܢܝܐ ܐܝܬ ܣܡܟܬܐ ܕܐܣܛܘܟܣܐ ، ܠܐ ܣܡܟܝܢ ܐܡܢܐ ܕܡܢܝܢܐ ٣ ܐܠܐ ܚܕܐ ܐܢܗ .

ܛܘܦܣܐ ( ٦ ) : ܟܢܘܫܬܐ ܕܦܠܓܘܬܐ ܕܡܢܝܢܐ ٦ = {١ ، ٢ ، ٣ ، ٦} .

ܕܘܪܫܐ ( ١ ـ ٢ )

( ١ ) ܣܡܘܟ ܐܣܛܘܟܣܐ ܕܟܢܘܫܬܐ ܕܡܢܝܢܐ ܙܘܓܢܝܐ ܐܝܬ ܒܝܢܬ ܟܠܦܐ ܕܒܝܬܐ ܡܢ ܡܢܝܢܐ ܕܐܬܝ :

١    ٢    ٣

٤    ٧

٥    ٦    ٨

ܐܪܐ ٣ ܡܗܝܢܐ ܠܟܢܘܫܬܐ ܕܡܢܝܢܐ ܙܘܓܢܝܐ ؟

( ٢ ) ܣܡܘܟ ܠܟܢܘܫܝܬܐ ܕܐܬܝ ܒܣܡܟܬܐ ܕܐܣܛܘܟܣܐ ܒܝܢ ܬܪܝܢ ܣܟܠܬܐ

ܐ ـ ܟܢܘܫܬܐ ܕܡܢܝܢܐ ܦܪܕܝܐ ܙܥܘܪܐ ܡܢ ٢٠ .

ܒ. ܟܢܘܫܬܐ ܕܡܟܦܘܪܐ ܕܡܢܝܢܐ ١٥ .

ܓ. ܟܢܘܫܬܐ ܕܪܘܫܡܐ ܡܬܩܪܝܐ ܠܪܘܡܐ ܕܡܢܝܢܐ ٣٤٤٤٥ .

ܕ. ܟܢܘܫܬܐ ܕܐܬܘܬܐ ܕܫܡܐ ܕܚܒܪܗ .

ܗ. ܟܢܘܫܬܐ ܕܪܘܫܡܐ ܕܐܣܟܡܐ ܪܒܝܥܝܐ ܪܡܝܐ ܒܐܣܟܡܐ ܕܠܥܠ .

ܗ

ܒ ܐ

ܓ

## ١ . ٣ ܟܢܘܫܬܐ ܣܦܝܩܬܐ :

ܗܪܟܐ ܟܢܘܫܝܬܐ ܕܐܬܝܢ :

* ܟܢܘܫܬܐ ܕܬܠܡܝܕܐ ܒܣܕܪܐ ܕܝܠܢ ܕܪܟܝܒܝܢ ܥܠ ܗܕܐ ܡܣܬܪܐ .

* ܟܢܘܫܬܐ ܕܐܪܥܢܝܬܐ ܚܕܪܢܝܬܐ ܒܩܪܘܒܐ .

* ܟܢܘܫܬܐ ܕܡܢܝܢܐ ܦܪܝܕܐ ܕܡܬܦܠܓܝܢ ܥܠ ٢ .

ܟܠܗܘܢ ܗܠܝܢ ܟܢܘܫܝܬܐ ܠܐ ܐܝܬ ܠܗܝܢ ܐܦ ܚܕ ܗܕܡܐ ، ܠܝܬ ܬܠܡܝܕܐ ܒܣܕܪܐ ܕܪܟܝܒ ܥܠ ܗܕܐ ܡܣܬܪܐ ، ܘܠܝܬ ܐܪܥܢܝܬܐ ܚܕܪܢܝܬܐ ܒܩܪܘܒܐ ، ܘܠܝܬ ܡܢܝܢܐ ܦܪܝܕܐ ܕܡܬܦܠܓ ܥܠ ٢ .

ܟܠ ܟܢܘܫܬܐ ܕܠܐ ܐܝܬ ܠܗ ܐܦ ܚܕ ܗܕܡܐ ܡܬܩܪܝܐ ܟܢܘܫܬܐ ܣܦܝܩܬܐ ، ܘܟܬܒܝܢ ܠܗ ∅ ܐܘ { }

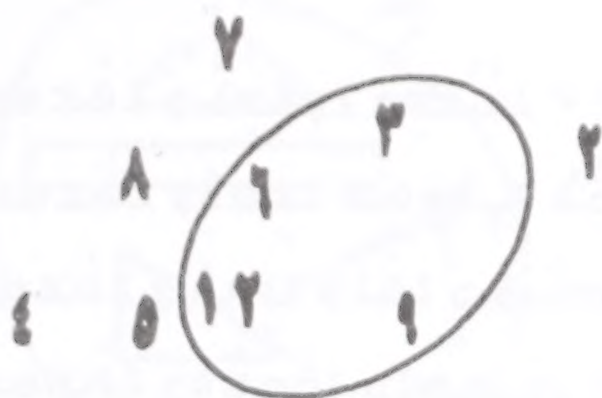
ܡܘܟܫܐ :

( ܐ ) ܟܢܘܫܬܐ ܕܝܘܡܐ ܕܝܪܚܐ ܕܐܝܬ ܒܗ ܝܬܝܪ ܡܢ ٣١ ܝܘܡܝܢ .

( ܒ ) ܟܢܘܫܬܐ ܕܐܢܫܐ ܕܡܥܠܝܢ ܒܫܡܝܐ ( ܒܠܚܘܕ ) .

( ܓ ) ܟܢܘܫܬܐ ܕܡܢܝܢܐ ܫܠܡܐ ܕܡܬܦܠܓܝܢ ܥܠ ٧ ܘܙܥܘܪܝܢ ܡܢ ٥ .

ܢܡܘܣܐ ܕܡܬܦܠܓܢܘܬܐ :



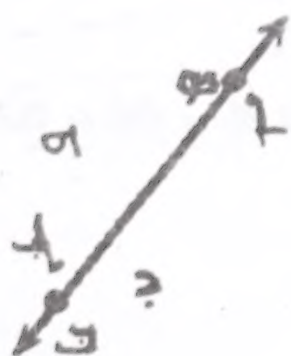

* ܚܘܪ ܗܘܝ ܒܐܨܛܘܡܐ
ܠܡܢܝܢܐ ܦܪܝܫܐ ܘܦܝܫܠܗ ܡܘܚܕܐ
ܟܢܘܫܬܐ ܕܟܦܝܠܐ ܕܡܢܝܢܐ ٣
ܟܦܝܠܐ ܦܫܝܛܐ ܕܟܝܢܐ .

* ܐܢ ܢܡܘܣܐ ܠܟܢܘܫܬܐ ܕܐܢܝ ܟܦܝܠܐ ܒܢܡܘܣܐ ܗ ܒܗܘܢܐ
ܗ = {٣ ، ٦ ، ٩ ، ١٢}

٣ ܡܬܝܚܣ ܠܟܢܘܫܬܐ ܗ .
٩ ܡܬܝܚܣ ܠܟܢܘܫܬܐ ܗ .
ܐܠܐ ٢ ܠܐ ܡܬܝܚܣ ܠܟܢܘܫܬܐ ܗ .
ܗܕ ܗܕܟܐ ٤ ܠܐ ܡܬܝܚܣ ܠܟܢܘܫܬܐ ܗ ܘܡܫܬܡܫܝܢ ܦܝܫ ܡܘܦܠܚܐ
ܢܡܘܣܐ ∈ ܡܢ ܒܝܬ ܦܘܫܩܐ ( ܡܬܝܚܣ ܠ ) .
ܘܢܡܘܣܐ ∉ ܡܢ ܒܝܬ ܦܘܫܩܐ ( ܠܐ ܡܬܝܚܣ ܠ ) .
ܡܢ ܒܝܬ ܦܘܫܩܐ ( ܡܢܝܢܐ ٣ ܡܬܝܚܣ ܠܟܢܘܫܬܐ ܗ ) ܦܝܫ ܕܟܬܝܒ ( ٣
∈ ܗ ) ܘܡܢ ܒܝܬ ܦܘܫܩܐ (٤ ܠܐ ܡܬܝܚܣ ܠܟܢܘܫܬܐ ܗ ) ܦܝܫ ܕܟܬܝܒ
ܠܗ ( ٤ ∉ ܗ ) .

ܡܘܦܬܐ ( ٧ ) :
ܟܬܘܒ ܢܡܘܣ ܠܟܢܘܫܬܐ ܕܦܠܓܘܬܐ ܕܡܢܝܢܐ ٢١ ܒܢܡܘܣܐ ܐ ܘܡܢ ܕܗܐ
ܐ = {١ ، ٣ ، ٧ ، ٢١}
ܚܙܝ ܗܘܝ ܕ ٣ ∈ ܐ ܘܦܪܫ ٣ ܡܬܝܚܣ ܠܟܢܘܫܬܐ ܐ .
ܘܗܕ ܗܕܟܐ ٧ ∈ ܐ
ܐܠܐ ٥ ∉ ܐ ܘܦܪܫ ٥ ܠܐ ܡܬܝܚܣ ܠܟܢܘܫܬܐ ܐ .

ܡܘܦܬܐ ( ٨ ) :



ܚܘܪ ܠܐܨܛܘܡܐ ܒܚܘܪܐ
ܕܡܪܝܐ ܗ ܝܠܗ ܚܕ ܟܢܘܫܬܐ ܡܢ
ܢܘܩܙܐ . ܐܝܬܠܗ ܡܪܝ ܢܘܩܙܐ ܐ ، ܒ
ܢܦܠܝ ܥܠ ܡܪܝܐ ܗ ܘܐܝܬ ܡܠܬܐ

ܒܡܠܬܐ ܐܚܪܬܐ ܘܒܠܚܘܕ ܐ ، ܕ ، ܗ ܠܐ ܢܦܠܝ ܥܠ ܡܪܢܝܬܐ .

ܡܢܝܢ ܡܬܢܝܢ ܠܗ ܐܡܪ ܕܐܬܐ :

ܐ ∈ ܣ ، ܕ ∉ ܣ ، ܒ ∈ ܣ ، ܗ ∉ ܣ ، ܚ ∉ ܣ

## ܕܘܪ̈ܫܐ ( ١ ـ ٣ )

( ١ ) ܟܬܘܒ ܐܣܛܘܟܣܐ ܕܟܠ ܚܕܐ ܡܢ ܟܢܘܫܝܬܐ ܕܐܬܝܢ ܒܦܫܝܛܘܬܐ ܕܡܫܡܫܬܐ .

ܐ . ܟܢܘܫܝܐ ܕܐܬܘ ܗ̇ܝ ܕܡܠܬܐ ( ܟܬܒܐ ) .

ܒ . ܟܢܘܫܝܐ ܕܡܢܝܢܐ ܕܦܪܝܫ ܠܗܘܢ ܒܡܦܠܓܬܐ ܕܡܢܝܢ ٣ ، ٦ ، ٩ ܕܠܐ ܫܪܟܐ .

ܓ . ܟܢܘܫܝܐ ܕܝܘܡܐ ܕܫܒܘܥܐ ܡܩܕܡܝܢ ܠܗ ܫܒܬܐ .

( ٢ ) ܟܬܘܒ ܗܘܝܐ :

ܐ = ܟܢܘܫܝܐ ܕܡܢܝܢܐ ܡܬܪܟܒܐ ܟܠ ܚܕ ܡܢܗܘܢ ܡܢ ܚܕ ܪܩܡܐ .

ܒ = ܟܢܘܫܝܐ ܕܡܢܝܢܐ ܡܬܪܟܒܐ ܟܠ ܚܕ ܡܢܗܘܢ ܡܢ ܬܪܝܢ ܪܩܡܐ .

ܓ = ܟܢܘܫܝܐ ܕܡܢܝܢܐ ܡܬܪܟܒܐ ܟܠ ܚܕ ܡܢܗܘܢ ܡܢ ܬܠܬܐ ܪܩܡܐ .

ܕܒܪ ܬܠܬ ܟܢܘܫܝܬܐ ܐ ، ܒ ، ܓ ܡܬܝܗܒ ܟܠ ܡܢ ܡܢܝܢܐ ܕܐܬܝܢ :

٣٦ ، ١٤٧ ، ٥ ، ٧ ، ٤٢٣ .

( ٣ ) ܟܬܘܒ ܗܘܝܐ ܦ = {١٠ ، ١١ ، ١٢ ، ٢٤ ، ٣٦ ، ١٥ ، ٩ ، ١٧}

ܘܟܬܘܒ ܒ ܗܘܝܐ ܟܢܘܫܝܬܐ ܕܐܣܛܘܟܣܐ ܡܢ ܟܢܘܫܝܬܐ ܦ ، ܐܝܢܝ ܕܡܬܦܠܓܝ ܦܠܓܘܬܐ ܥܠ ٢

ܘܟܬܘܒ ܗ ܗܘܝܐ ܟܢܘܫܝܬܐ ܕܐܣܛܘܟܣܐ ܡܢ ܟܢܘܫܝܬܐ ܦ ، ܐܝܢܝ ܕܡܬܦܠܓܝ ܦܠܓܘܬܐ ܥܠ ٣

ܟܬܘܒ ܟܠ ܡܢ ܒ ، ܗ ܒܢܝܢ ܡܫܡܫܬܐ .

( ٤ ) ܟܬܘܒ ܗܘܝܐ ܠ = {٢ ، ٤ ، ٧ ، ٩} ܚܫܘܒ ܡܫܪܪܘܬܐ ܐܘ ܠܐ ܡܫܪܪܘܬܐ ܕܦܬܓܡܐ ܕܐܬܝܢ :

٤ ∈ ܠ ، ٣ ∉ ܠ ، ٩ ∈ ܠ ، ٤ ∉ ܠ

( ٥ ) ܚܫܘܒ ܡܫܪܪܘܬܐ ܐܘ ܠܐ ܡܫܪܪܘܬܐ ܕܦܬܓܡܐ ܕܐܬܝܢ :

٣ ∈ {٥ ، ٤ ، ٣ ، ٩}

٧ ∉ {٢ ، ٣ ، ٧}

ܗ ∈ ܟܢܘܫܝܐ ܕܐܬܘܬܐ ܕܡܠܬܐ ܗܘܪܐ .

( ٦ ) ܐܡܘܪ ܟܠ ܚܕ ܡܢ ܕܠܬܚܬ ܒܡܫܡܫܢܘܬܐ ܕܐܝܬܘܗܝ ∋ ܐܘ ∌

ܫܒܬܐ ........ ܟܢܘܫܬܐ ܕܝܘܡܝ ܕܫܒܬܐ .

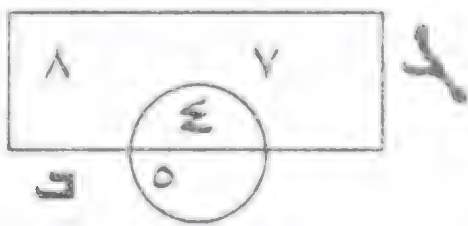
٤٢ ........ ܟܢܘܫܬܐ ܕܡܥܦܦܐ ܕܡܢܝܢܐ ٧ .

٧ ........ {٣، ٤ ، ٥ ، ٧}

ܢܝܣܢ ........ {ܐܕܪ ، ܟܢܘܢ ، ܐܝܪ}

٨ ........ ܟܢܘܫܬܐ ܕܡܦܠܓܢܐ ܕܡܢܝܢܐ ٧٢

( ٧ ) ܚܘܝ ܠܡܫܡܫܢܐ ، ܡܢ ܦܘܚܡ ܡܚܘܝܬܐ ܐܘ ܠܐ ܡܚܘܝܬܐ ܕܟܠ ܦܬܓܡܐ

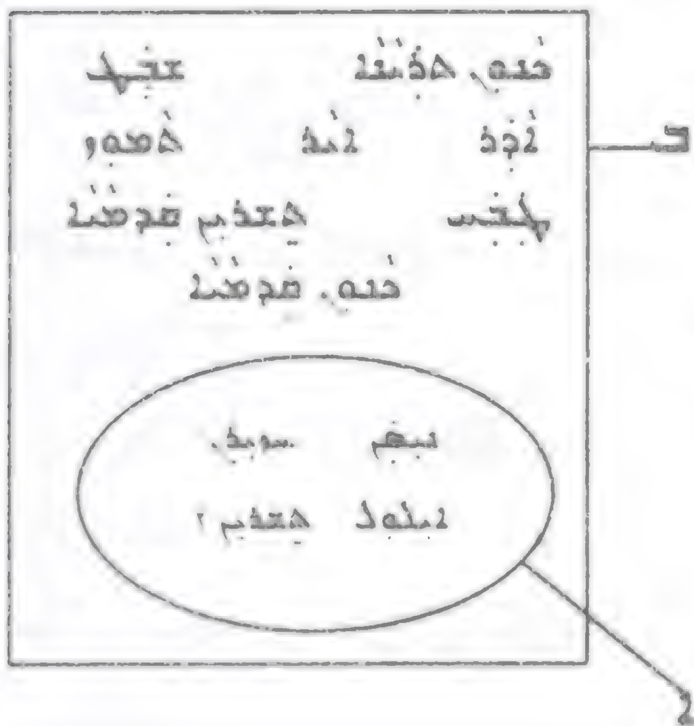



٧ ∋ ܐ ، ٨ ∋ ܐ

٨ ∌ ܒ ، ٧ ∌ ܐ

٥ ∋ ܒ ، ٤ ∋ ܐ

## ١ . ٤ ܟܢܘܫܬܐ ܡܢܘܬܢܝܬܐ




ܡܬܠܐ ( ٩ ) :

* ܚܘܝ ܒܡܫܡܫܢܐ :

ܒ = ܟܢܘܫܬܐ ܕܝܠܘܕܐ ܕܫܢܬܐ ܬܠܝܬܝܬܐ

ܐ = ܟܢܘܫܬܐ ܕܝܠܘܕܐ ܕܫܢܬܐ ܕܡܢܝܢܐ

ܕܝܘܡܝܗܘܢ ٣٠ ܫܢܝܐ .

ܟܠ ܐܡܬܚܡܬܐ ܒܟܢܘܫܬܐ ܐ ܐܦ ܗܝ

ܐܡܬܚܡܬܐ ܒܟܢܘܫܬܐ ܒ .

* ܚܘܝ ܠܐܚܕܘܗܝ ܟܢܘܫܬܐ :

ܐ = {٢ ، ٣ ، ٤ ، ٦}

ܒ = {١ ، ٢ ، ٣ ، ٤ ، ٥ ، ٦}

ܟܠ ܐܡܬܚܡܬܐ ܒܟܢܘܫܬܐ ܐ ܐܦ ܗܝ ܐܡܬܚܡܬܐ ܒܟܢܘܫܬܐ ܒ .

ܘܓܪܘܥܬܐ ܦܘܫܐ :

ܐܢ ܟܠ ܐܣܛܘܟܣܐ ܡܢ ܐܣܛܘܟܣܐ ܕܟܢܘܫܬܐ ܐ ܡܫܟܚܝܗ ܠܟܢܘܫܬܐ ܒ ،
ܦܝܫ ܐܡܝܪܐ ܕܟܢܘܫܬܐ ܐ ܟܢܘܫܬܐ ܡܢܘܬܢܝܬܐ ܡܢ ܟܢܘܫܬܐ ܒ
ܘܦܝܫ ܟܬܝܒܐ ܒܨܘܪܬܐ ܐ $\subseteq$ ܒ ܘܩܪܝܬܐ ܐ ܟܢܘܫܬܐ ܡܢܘܬܢܝܬܐ ܡܢ ܒ
ܘܐܢ ܐܝܬ ܚܕ ܐܣܛܘܟܣܐ ܒܨܘܪܐܝܬ ܕܟܢܘܫܬܐ ܐ ܠܐ ܡܫܟܚܝܗ ܠܟܢܘܫܬܐ
ܒ ، ܦܝܫ ܐܡܝܪܐ ܕܟܢܘܫܬܐ ܐ ܠܐ ܡܢܘܬܢܝܬܐ ܡܢ ܟܢܘܫܬܐ ܒ .
ܘܦܝܫ ܟܬܝܒܐ ܐ $\nsubseteq$ ܒ ܘܩܪܝܬܐ
ܐ ܟܢܘܫܬܐ ܠܐ ܡܢܘܬܢܝܬܐ ܡܢ ܒ

ܡܬܠܐ ( ١٠ ) :

ܐ = {٥ ، ٧ ، ٨}

ܒ = {٢ ، ٣ ، ٥}

ܐ $\not\subset$ ܒ ܒܗܝ ܕܐܝܬܠܗ ܐܣܛܘܟܣܐ ٧ ، ٨ ܡܫܟܚܝ ܠܗ ܐ ܘܠܐ ܡܫܟܚܝ
ܠܒ .

ܡܬܠܐ ( ١١ ) :

ܟܢܘܫܬܐ ܕܬܠܡܝܕܐ ܒܡܕܪܫܬܐ ܗܝ ܟܢܘܫܬܐ ܡܢܘܬܢܝܬܐ ܡܢ ܬܠܡܝܕܐ
ܕܡܕܪܫܬܐ ܒܗܝ ܕܟܠ ܬܠܡܝܕܐ ܗܘ ܒܡܕܪܫܬܐ ܗܝ ܬܠܡܝܕܐ ܗܘ
ܡܕܪܫܬܐ . ܐܢ ܩܪܝܢ ܠܟܢܘܫܬܐ ܕܬܠܡܝܕܐ ܕܒܡܕܪܫܬܐ ܒܫܡܐ ܐ
ܘܠܟܢܘܫܬܐ ܕܬܠܡܝܕܐ ܕܡܕܪܫܬܐ ܒܫܡܐ ܒ . ܒܐܡܪܝܢ ܐ ܟܢܘܫܬܐ
ܡܢܘܬܢܝܬܐ ܡܢ ܒ ܐܘ ܒܟܬܒܝܢ ܐ $\subseteq$ ܒ

## ܕܘܪ̈ܫܐ ( ١ - ٤ )

( ١ ) ܦܫܘܩ ܡܫܪܝܘܬܐ ܐܘ ܠܐ ܡܫܪܝܘܬܐ ܕܦܣܩܢܝܬܐ ܕܐܬܝܢ :

{٢ ، ٤} ⊆ {٢ ، ٤ ، ٦}

{٣ ، ٥} ⊈ {٣ ، ٤ ، ٥ ، ٦}

- {ܒܓܕܕ ، ܡܘܨܠ} ⊆ ܟܢܘܫܬܐ ܕܐܪ̈ܟܫܢܝܬܐ ܕܐܬܪ̈ܘܬܐ ܥܝܪ̈ܩܝܐ .
- {ܢܘܝܢܝ ، ܡܪܩܘܣ} ⊈ {ܘܪܕܐ ، ܐܠܦܐ ، ܝܠܗ}

( ٢ ) ܐܢ ܗܘܝܐ :

ܐ = {ܕܩܠܬ ܘܦܪܬ} ، ܒ = {ܗ ، ܘ} ، ܓ = {٣ ، ٤ ، ٥}

ܕ = {ܐܒܪܡ ، ܝܘܣܦ ، ܝܥܩܘܒ} ، ܗ = ܟܢܘܫܬܐ ܕܐܬܘ̈ܬܐ ܕܠܫܢܐ ܣܘܪܝܝܐ .

ܘ = {٢ ، ٣ ، ٤ ، ٥ ، ٦} ، ܙ = ܟܢܘܫܬܐ ܕܝܘܡ̈ܬܐ ܕܫܒܥܐ ܒܫܒܬܐ

ܚ = ܟܢܘܫܬܐ ܕܐܬܪ̈ܘܬܐ ܥܝܪ̈ܩܝܐ .

ܟܬܘܒ ܟܠ ܚܕ ܕܐܝܟ ܕܗܘܐ ܦܣܩܢܝܬܐ ܡܫܪܝܐ :

ܐ - ⊆ ______ ، ܒ - ⊆ ______ ، ܓ - ⊆ ______ ، ܕ - ⊆ ______

( ٣ ) ܐܢ ܗ ܗܘܝܐ = {٧ ، ١٤ ، ٢١ ، ٢٨ ، ٣٥}

ܐܝܢܐ ܡܢ ܟܢܘܫ̈ܝܬܐ ܕܐܬܝܢ ܟܢܘܫܬܐ ܡܢܬܢܝܬܐ ܕܝܠܗ ܡܢ ܗ ܘܐܝܢܐ ܠܐ ܕܝܠܗ ܟܢܘܫܬܐ ܡܢܬܢܝܬܐ ܡܢ ܗ :

ܐ = {٧ ، ٤٢} ، ܒ = {٢١ ، ٢٨ ، ٣٥} ،

ܓ = {٢١ ، ٧ ، ٣٥ ، ١٤} ، ܕ = {٣ ، ١٤ ، ٢٨}

( ٤ ) ܡܠܝ ܠܦܪܘܩܐ ( ∈ ܐܘ ∉ ܐܘ ⊆ ܐܘ ⊈ ) ܠܗ ܡܫܠܡܘܬܐ ܕܐܬܝܢ :

ܐ - {ܐܒܪܡ} ......... ܟܢܘܫܬܐ ܕܐܬܘܪ̈ܝܐ ܥܝܪ̈ܩܝܐ .

ܒ - ܢܝܠ ......... ܟܢܘܫܬܐ ܕܢܗܪ̈ܘܬܐ ܕܥܒܪܝܢ ܒܡܨܪܝܢ

ܓ - ܟܘܫܐ ......... ܟܢܘܫܬܐ ܕܐܬܘܪ̈ܝܐ ܥܝܪ̈ܩܝܐ ܥܠܡ̈ܝܐ ܕܝܠܗ ܐܒܪܡ .

ܕ - ٤٢ ......... ܟܢܘܫܬܐ ܕܟܦ̈ܠܐ ܕܡܢܝܢܐ ٧

ܗ - {٢ ، ٤ ، ٧} ......... ܟܢܘܫܬܐ ܕܡܦܠܓ̈ܢܐ ܕܡܢܝܢܐ ١٦ .

ܘ - {٢ ، ٣} ......... {٧ ، ٥ ، ٢ ، ٣}

ܙ - ٣٥ ......... ܟܢܘܫܬܐ ܕܟܦ̈ܠܐ ܕܡܢܝܢܐ ٣

## ١ . ٥ ܫܘܝܘܬܐ ܕܟܢܘܫܝܬܐ

* ܢܗܘܐ ܗܘܝܐ ܐ = ܟܢܘܫܬܐ ܕܝܘܡܝ ܕܫܒܘܥܐ

ܘܗܘܝܐ ܒ = {ܫܒܬܐ ، ܚܕܒܫܒܐ ، ܬܪܝܢܒܫܒܐ ، ܬܠܬܒܫܒܐ ، ܐܪܒܥܒܫܒܐ ، ܚܡܫܒܫܒܐ ، ܥܪܘܒܬܐ}

ܚܙܝܢ ܕܟܠ ܗܕܡܐ ܡܢ ܐ ܘܗܕܡܐ ܒ ܐܝܬܘܗܝ ܡܢ ܗܕܡܐ ܕܐܚܪܬܐ

ܟܢܘܫܝܬܐ ܗܠܝܢ ܫܘܝܢ :

ܐ = ܒ ܐܘ ܒ = ܐ ، ܘܡܬܩܪܝܐ ܐ ܫܘܝܐ ܠ ܒ ܐܘ ܒ ܫܘܝܐ ܠ ܐ

* ܚܘܝ :

ܟܢܘܫܬܐ ܐ = {٣ ، ٤ ، ٥}

ܘܟܢܘܫܬܐ ܒ = {٤ ، ٥ ، ٣}

ܚܙܝܢ ܕܗܕܡܐ ܟܢܘܫܝܬܐ ܫܘܝܢ

ܠܐܝܟܢܐ ܟܢܘܫܝܬܐ ܟܠ ܕܗܘܐ ܫܘܝܢ :

ܐ = ܒ ܐܘ ܒ = ܐ ܘܗܕܐ ܡܫܬܘܕܥܐ ܕ ܐ . ܒ ܗܘ ܡܕܡ ܠܟܢܘܫܬܐ ܟܢܘܫܝܬܐ ܘܫܘܝܢ

| |
|---|
| ܐܢ ܟܠ ܡܢ ܐ ، ܒ ܗܘܐ ܠܟܢܘܫܬܐ ܫܘܝܢ ܐ = ܒ ܐܘ ܒ = ܐ<br>ܐܢ ܟܠ ܐܚܪܢܝܬܐ ܡܫܬܘܚܐ ܠܟܢܘܫܬܐ ܐ ܗܝ ܐܚܪܢܝܬܐ<br>ܡܫܬܘܚܐ ܠ ܒ ܘܟܠ ܐܚܪܢܝܬܐ ܡܫܬܘܚܐ ܠ ܒ ܗܝ ܐܚܪܢܝܬܐ<br>ܡܫܬܘܚܐ ܠ ܐ . |

ܘܒܠܫܢܐ ܐܚܪܢܐ :

| |
|---|
| ܐ = ܒ ܐܢ ܐ ⊆ ܒ ܘܐܦ ܒ ⊆ ܐ |

ܡܬܠܐ (١٢) :

ܢܗܘܐ ܗܘܝܐ ܣ = {٧ ، ١ ، ٥}

ܘܢܗܘܐ ܗܘܝܐ ܨ = {١ ، ٧ ، ٥}

ܡܕܝܢ ܗܘܐ ܣ = ܨ

ܡܬܠܐ (١٣) :

ܢܗܘܐ ܗܘܝܐ ܟ = ܟܢܘܫܬܐ ܕܡܢܝܢܐ ܕܙܥܘܪܝܢ ٦

ܘܫܒܘܩ ܨ = {١ ، ٢ ، ٣ ، ٦}

ܐܝܟ ܕܟܢܘܫܬܐ ܕܦܠܓܘܬܐ ܕܡܢܝܢܐ ٦ =

{١ ، ٢ ، ٣ ، ٦} ܟܕ ܐܝܬ ܠܢ ܒ = ܨ

ܡܬܠܐ ( ١٤ ) :

ܫܒܘܩ ܗܘܐ ܐ = {٢ ، ٣ ، ٤} ، ܫܒܘܩ ܗܘܐ ܒ = {٣ ، ٤ ، ٥}

ܒܘܚܢ ܕ :

ܐ ܠܐ ܫܘܝܐ ܠܒ ܒ ܒܥܠ ܕܐܝܬ ܗܘ ܒܟܢܘܫܬܐ ܐ ، ܒ ܠܐ ܫܘܝܐ

ܠܗܠܡܘܬܐ ܒܗܕܐ .

ܡܦܩܬܐ ( ܐ ܠܐ ܫܘܝܐ ܒ )

ܦܠܛܐ ܡܢܝܢܐ ܐ ≠ ܒ

> ܟܕ ܐܝܬ ܠܝ ܚܕ ܡܠܐ ܐ ، ܒ ܕܡܢܐ ܠܟܢܘܫܬܐ ܦܠܛܐ ܡܫܘܕܥܐ ܕ ܐ ܠܐ
> ܫܘܝܐ ܒ ܘܡܢܝܢܐ ܐ ≠ ܒ ܠܝ ܐܝܬ ܚܕ ܠܗܠܡܘܬܐ ܒܐܝܬܘܬܐ ܠܗ
> ܚܕܐ ܡܢܗܘܢ ܠܝܬ ܠܗ ܗܘ ܐܚܪܬܐ .

ܡܬܠܐ 15 :

ܫܒܘܩ ܗܘܐ ܗ = {٢ ، ٣ ، ٤ ، ٥}

ܙ = {٢ ، ٣ ، ٤}

ܒܘܚܢ ܕ : ܗ ≠ ܙ ܒܥܠ ٥ ∋ ܗ ، ٥ ∌ ܙ

ܕܘܪܫܐ ( ١ ـ ٥ )

( ١ ) ܫܒܘܩ ܗܘܐ ܐ = ܟܢܘܫܬܐ ܕܦܠܓܐ ܕܐܬܐ ܕܡܢܝܢܐ ، ܒ = {٣ ، ٤ ، ٧}

ܓ = {ܗܡܫܐ ، ܐܪܒܥܐ ، ܫܒܥܐ ، ܬܠܬܐ} ، ܕ = {٧ ، ٥ ، ٣}

ܐܡܪ ܡܦܩܬܐ ܡܢ ܗܠܝܢ ܕܐܬܝܢ ܠܗܘܢ ܫܪܝܪܐ ܐܘ ܠܐ

ܐ = ܓ ، ܓ = ܕ ، ܐ = ܒ ، ܒ ≠ ܓ ، ܕ ≠ ܒ ، ܐ ≠ ܕ

( ٢ ) ܡܠܝ ܠܦܘܫܩܐ ܕܐܬܐ ܡܢܝܢܐ ܕܡܢܘܬܐ = ܐܘ ≠ ܕܗܘܐ

ܡܦܩܬܐ ܫܪܝܪܐ :

ܐ ـ ܟܢܘܫܬܐ ܕܐܬܘܬܐ ܕܡܠܬܐ ܒܝܬܐ ...... {ܒ ، ܝ ، ܬ ، ܐ}

ܒ ـ {٢ ، ٤ ، ٦} ...... {٤ ، ٦ ، ٣}    ܓ ـ {ܐ ، ܒ ، ܓ} ...... {ܓ ، ܐ ، ܒ}

ܕ ـ {٧ ، ٨ ، ٩} ...... {٨ ، ٩ ، ٧}

( ٣ ) ܐܫܟܚ ܡܢܝܢܐ ( ܣ ) ܐܢ ܗܘܐ :

{٥ ، ܣ ، ٧} = {٣ ، ٥ ، ٧}

{٥ ، ٦ ، ٧ ، ܣ} = {٧ ، ٢ ، ٦ ، ٥}

{٣ ، ٦ ، ܣ ، ١٢} = {١٢ ، ٩ ، ٣ ، ٦}

( ٤ ) ܣܝܡ ܢܝܫܢܐ ( √ ) ܩܕܡ ܦܬܓܡܐ ܫܪܝܪܐ ܘܢܝܫܢܐ ( × ) ܩܕܡ ܦܬܓܡܐ ܠܐ ܫܪܝܪܐ ܒܟܠ ܚܕ ܡܢ ܕܐܬܐ :

ܐ ـ {٥} ⊃ {٥ ، ٣ ، ٤}

ܒ ـ {١ ، ٢ ، ٣} ⊉ {٤ ، ٥ ، ٦ ، ٧}

ܓ ـ {١ ، ٢ ، ٣} = {٢ ، ٣ ، ١}

ܕ ـ {٦ ، ٧} ⊇ {٣ ، ٥ ، ٧}

ܗ ـ ٧ ∋ {١ ، ٣ ، ٤}

ܘ ـ ٥ ∌ {٧ ، ٢ ، ١٠ ، ٥}

( ٥ ) ܣܝܡ ܠܢܝܫܐ ( ∋ ، ∌ ، = ، ⊇ ، ⊉ ) ، ܡܢ ܪ̈ܡܙܐ ܗܠܝܢ ܒܡܫܠܡܘܬܐ ܕܗܘܐ ܦܬܓܡܐ ܫܪܝܪܐ :

ܐ ـ {٥ ، ٧ ، ٩} .......... {٧ ، ٩}

ܒ ـ {٣ ، ٤} .......... {٤ ، ٣}

ܓ ـ ١٥ .......... {١٧ ، ٢٢ ، ١٥}

(ܕ) ܨ .......... {ܐ ، ܒ ، ܣ}

ܗ ـ {١٣} .......... {١ ، ٣ ، ١٣}

## ١.٦ ܡܫܬܬܦܬܐ ܕܟܢܘܫܬܐ

ܡܬܠܐ ( ١٦ ) :

ܐܢ ܚܫܒܝܚ ܗ ܒܝܬ ܟܢܘܫܬܐ ܕܬܠܡܝܕܐ ܒܫܪܒܐ ܕܠܚܒܪܐ ܡܢ ܣܘܪܝܐ
ܚܕܐ ܕܝܢ :

ܗ = { ܐܕܝ ، ܫܠܝܡܘܢ ، ܢܡܪܘܕ ، ܦܠܘܣ ، ܦܢܚܣ ، ܦܛܝ ، ܓܒܪܐܝܠ }

ܘܟܢܘܫܬܐ ܓ ܦܠܘܛܘܢ ܬܠܡܝܕܐ ܒܫܪܒܐ ܕܠܚܒܪܐ ܡܢ ܥܪܒܝܐ ܐܚܪܬܐ
ܕܝܢ :

ܓ = { ܐܕܝ ، ܡܘܫܐ ، ܫܠܝܡܘܢ ، ܓܘܪܓܝܣ ، ܦܛܝ ، ܓܒܪܐܝܠ }

ܚܙܝܢܢ ܠܬܪܬܝܗܝܢ ܟܢܘܫܝܬܐ ܚܙܝܢ ܕܐܕܝ ܘܦܛܝ ܘܓܒܪܐܝܠ ܠܚܒܪܐ
ܡܢ ܣܘܪܝܐ ܚܕܐ ܘܥܪܒܝܐ ܐܚܪܬܐ ܗܢܐ ܗܘ :

ܦܛܝ ∈ ܗ ، ܘܦܛܝ ∈ ܓ

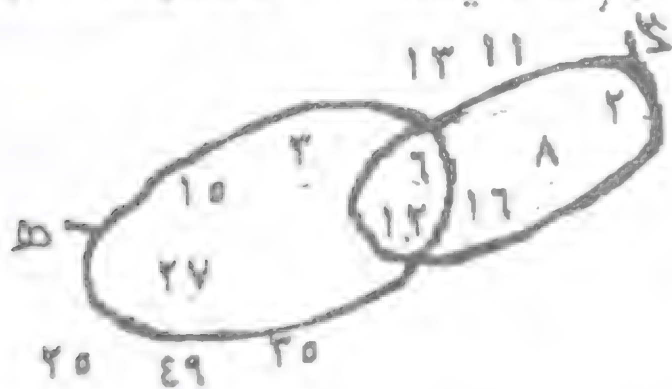
ܐܕܝ ∈ ܗ ، ܘܐܕܝ ∈ ܓ

ܓܒܪܐܝܠ ∈ ܗ ، ܘܓܒܪܐܝܠ ∈ ܓ

ܟܢܘܫܬܐ { ܐܕܝ ، ܦܛܝ ، ܓܒܪܐܝܠ } ܡܬܩܪܝܐ ܠܥܠܡܐ ܫܘܬܦܘܬܐ
ܡܢ ܒܝܢ ܗ ، ܓ

ܡܬܠܐ ( ١٧ ) :

ܐܢ ܗܘܝܐ ܡܢ ܡܢܝܢܐ ܕܠܐ ܚܠܝܦܐ ܕܡܢܝܢܐ ٣ ܒܚܠܝܦܐ ܕܓܒܪܐ ܘܪܡܝܐ
ܒܢܘܫܐ ܗ ܘܗܘܝܐ ܟܢܘܫܬܐ ܕܚܠܝܦܐ ܕܡܢܝܢܐ ٢ ܒܚܠܝܦܐ ܕܓܒܪܐ
ܘܪܡܝܐ ܓ .



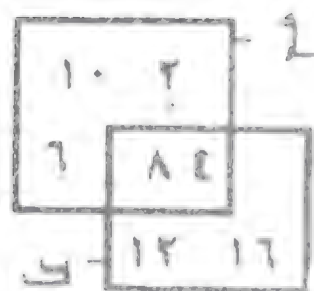

ܚܙܝܢ ٦ ∈ ܗ ܘ ٦ ∈ ܓ

ܘܗܕ ܗܘܝܐ ١٢ ∈ ܗ ܘ ١٢ ∈ ܓ

ܡܬܩܪܝܐ ܟܢܘܫܬܐ { ٦ ، ١٢ } ܟܠܝܗ ܫܘܬܦܘܬܐ ܡܢ ܒܝܢ ܗ ، ܓ

ܦܘܬܓܡܐ ( ١٨ ) :

ܚܘܝ ܕܟܢܘܫܝܬܐ



ܐ = ܟܢܘܫܝܬܐ ܕܦܠܓܘܬܐ ܕܡܢܝܢܐ ٦

ܒ = ܟܢܘܫܝܬܐ ܕܦܠܓܘܬܐ ܕܡܢܝܢܐ ٩

ܗܕܐ ܐܝܟ ܐ = { ١ ، ٢ ، ٣ ، ٦ }

ܒ = { ١ ، ٣ ، ٩ }

ܟܢܘܫ ܗܕܐ ܓ = ܟܢܘܫܝܬܐ ܕܦܠܓܘܬܐ ܡܫܘܬܦܬܐ ܒܝܢ ܟܢܘܫܝܬܐ ܐ ، ܒ

ܓ = { ١ ، ٣ }

ܚܘܝ ܕܟܠ ܐܣܛܘܟܣܐ ܡܢ ܐܣܛܘܟܣܐ ܓ ܡܬܚܙܝܐ ܠܐ ܘܡܬܚܙܝܐ ܠܒ

١ ∈ ܐ ، ١ ∈ ܒ ، ٣ ∈ ܐ ، ٣ ∈ ܒ

ܦܫܛܐ ܡܕܝܢ ܓ ܟܢܘܫܝܬܐ ܕܡܫܘܬܦܬܐ ܕܟܢܘܫܝܬܐ ܐ ، ܒ ܘܐܣܛܘܟܣܐ ܕܝܠܗ̇

ܐܝܬܝܗܘܢ ܒܟܠ ܟܢܘܫܝܬܐ ܐ ، ܒ

ܘܟܢܘܫܝܬܐ ܕܡܫܘܬܦܘܬܐ ܓ . ܘܦܝܫܐ ܡܬܩܪܝܐ ܒܐܬܐ ( ∩ ) ܠܡܚܘܝܘ ܥܠ

ܡܫܘܬܦܘܬܐ ܕܟܢܘܫܝܬܐ .

ܗܕܐ ܐܝܟ ܓ = ܐ ∩ ܒ ܘܩܪܝܐ ܐ ܡܫܘܬܦܬܐ ܒ

ܦܘܬܓܡܐ ( ١٩ ) :

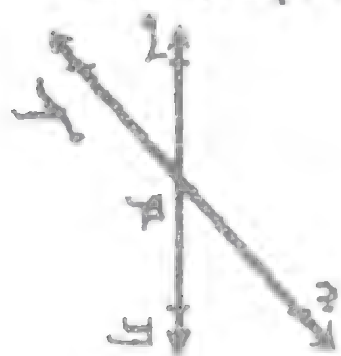
ܐܢ ܗܠ ܡܢ ܐ ، ܒ

ܟܢܘܫܝܬܐ ܕܠܗ :

ܐ = { ٢ ، ٤ ، ٦ ، ٨ ، ١٠ }

ܒ = { ٤ ، ٨ ، ١٢ ، ١٦ }

ܒܗܘܢ ܐ ∩ ܒ = { ٤ ، ٨ }



ܦܘܬܓܡܐ ( ٢٠ ) : ܒܐܣܛܘܟܣܐ ܕܚܛܐ

$\overleftrightarrow{ܐܒ}$ ، $\overleftrightarrow{ܓܕ}$

ܢܘܩܙܐ ܗ ܡܫܘܬܦܬܐ ܠܬܪܘܝܗܘܢ ܚܛ̈ܐ ܒܐܡܪܝܢ : $\overleftrightarrow{ܐܒ} \cap \overleftrightarrow{ܓܕ}$ = ܗ

ܘܢܦܝܠܐ ܕܐܡܪܝܢ ܠܬܪܝܢ ܚܛ̈ܐ

ܡܫܬܘܐܢ ܐܢ ܗܘܐ ܠܗܘܢ ܢܘܩܙܐ

ܡܫܘܬܦܬܐ .

ܘܦܘܼܢܵܝܹܗ :

| ܡܫܲܘܬܵܦܘܼܬܵܐ ܕܟܢܘܼܫܝܵܬ̈ܵܐ ܐ ، ܒ ܝܠܵܗ̇ ܟܢܘܼܫܝܵܐ ܕܟܠܗܘܿܢ ܐܸܣܛܘܼܟܣܹ̈ܐ ܕܡܫܲܘܬܦܝܼ ܠ ܐ ، ܒ |
|---|

## ܕܘܼܪܵܫܵܐ ( ١ ـ ٦ )

ܡܲܚܫܸܒ ܟܢܘܼܫܝܵܐ ܕܡܫܲܘܬܵܦܘܼܬܵܐ ܕܟܠ ܚܕ ܡܼܢ ܟܢܘܼܫܝܵܬ̈ܵܐ ܕܐܵܬܹܐ :

١/ { ٢ ، ٤، ٥، ٧ } ∩ { ٤، ٩، ٧، ٣ }

٢/ { ٥، ٧، ٨، ٢٠ } ∩ { ٥، ١٧، ٣١ }

٣/ { ٢، ٤، ٦، ٨ } ∩ { ٦، ٩، ٨، ١١ }

٤ ) ܐܸܢ ܗ̤ܘܵܬ ܣ = { ܦܪܲܢܣܵܐ ، ܐܲܠܡܵܢܝܵܐ ، ܐܝܼܛܵܠܝܵܐ ، ܣܘܼܪܝܵܐ ، ܡܨܪܹܝܢ ، ܐܲܡܪܝܼܟܵܐ } ܟܢܘܼܫܝܵܐ ܕܐܲܬܪ̈ܘܵܬܵܐ ܕܝܘܼܪܘܿܦܵܐ ܘܕܐܲܬܪ̈ܘܵܬܵܐ ܦܲܠܓܵܢܵܝܹ̈ܐ

ܨ = { ܡܲܨܪܹܝܢ ، ܐܝܼܛܵܠܝܵܐ ، ܣܘܼܪܝܵܐ ، ܠܸܒܢܵܢ ، ܬܘܼܪܟܝܵܐ } ܟܢܘܼܫܝܵܐ ܕܐܲܬܪ̈ܘܵܬܵܐ ܕܝܘܼܪܘܿܦܵܐ ܘܕܐܲܬܪ̈ܘܵܬܵܐ ܕܝܲܡܵܐ ܡܸܨܥܵܝܵܐ ، ܐܲܚܫܸܒ ܠܟܢܘܼܫܝܵܐ ܣ ∩ ܨ ܘܡܲܢ ܝܠܹܗ̇ ܐܸܣܛܘܼܟܣܹ̈ܐ .

( ١ ـ ٧ ) ܚܘܼܝܵܕܵܐ ܕܟܢܘܼܫܝܵܬ̈ܵܐ :

ܐܸܢܗ̤ܘ ܟܢܘܼܫܝܵܐ ܕܗܲܕܵܡܹ̈ܐ ܕܝܘܼܠܦܵܢܵܐ ܕܡܲܕܪܲܫܬܵܐ ܦܪܝܼܫܬܵܐ ܗ̤ܝ :

ܐ = { ܡܘܼܣܝܼܩܝ ، ܓܐܘܿܡܛܪܝܼܐ ، ܘܪܕܢܐ ، ܥܲܪܒܵܝܵܐ ، ܣܘܼܪܝܵܝܵܐ ، ܬܘܪܝܬܐ }

ܘܐܸܢܗ̤ܘ ܗ̤ܕܡܐ ܕܝܘܠܦܢܐ ܕܒܸܠܬܵܐ ܗ̤ܝ :

ܒ = { ܘܪܕܢܐ ، ܐܲܪܥܵܐ ، ܦܝܼܙܝܼܩܝ ، ܬܘܪܝܬܐ ، ܟܝܼܡܝܵܐ }

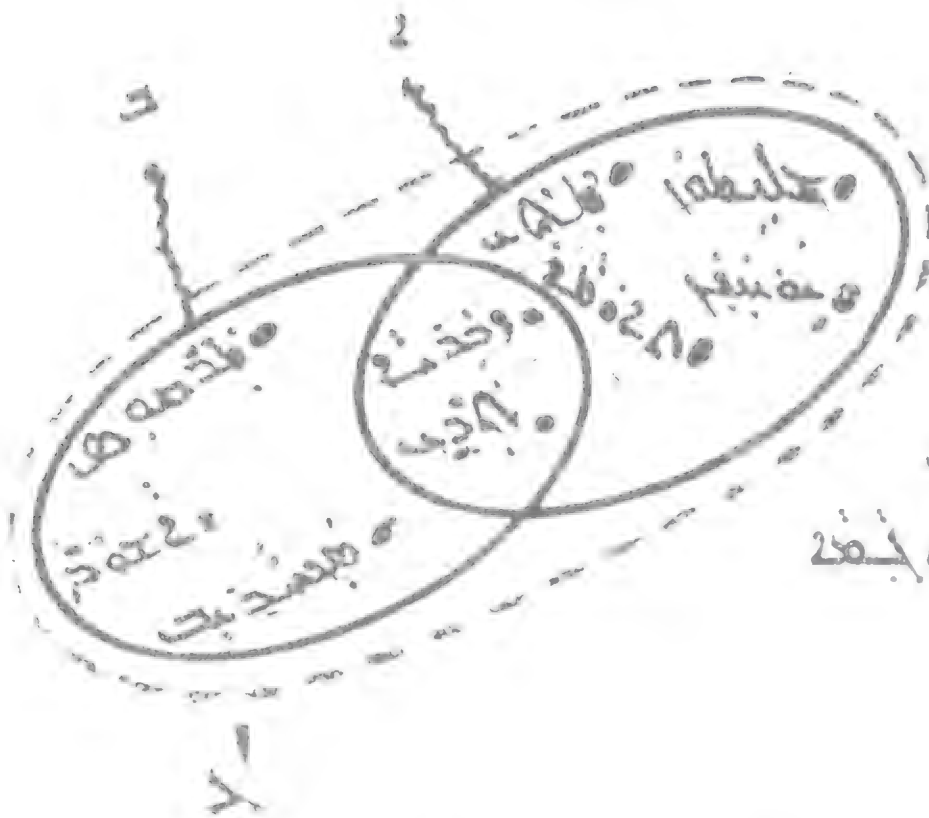
ܦܫܝܼܛܵܐܝܼܬ ܕܐܝܼܬܹܝ ܦܲܝܫܵܐ ܕܐܸܟܘܵܬܵܐ ܐܝܼܠܹܝܢ ܠܗܲܕܵܡܹ̈ܐ ܕܝܘܼܠܦܵܢܵܐ ܕܡܲܕܪܲܫܬܵܐ ܦܪܝܼܫܬܵܐ ܘܕܝܘܼܠܦܵܢܵܐ ܕܒܸܠܬܵܐ ܘܟܠܗܘܿܢ ܦܲܝܫܝܼ ܐܸܟܘܵܬܵܐ :

ܠ = { ܡܘܼܣܝܼܩܝ ، ܓܐܘܿܡܛܪܝܼܐ ، ܘܪܕܢܐ ، ܥܲܪܒܵܝܵܐ ، ܣܘܼܪܝܵܝܵܐ ، ܬܘܪܝܬܐ ، ܐܲܪܥܵܐ ، ܦܝܼܙܝܼܩܝ ، ܟܝܼܡܝܵܐ }

ܟܠܗܘܿܢ ܗܲܕܵܡܹ̈ܐ ܕܦܲܝܫܝܼ ܝܘܼܠܦܵܢܵܐ ܕܡܲܕܪܲܫܬܵܐ ܕܒܸܠܬܵܐ ܦܲܝܫܝܼ ܐܸܟܘܵܬܵܐ

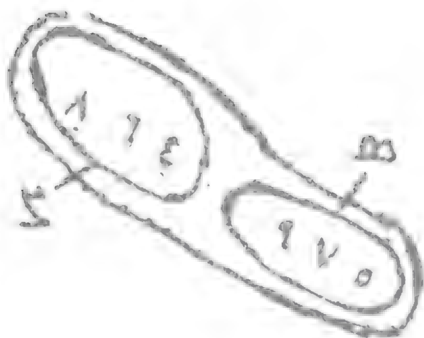
( ܐܲܪܥܵܐ ، ܦܝܼܙܝܼܩܝ ، ܟܝܼܡܝܵܐ ) ܐܵܘ ܝܘܼܠܦܵܢܵܐ ܕܡܲܕܪܲܫܬܵܐ ܦܪܝܼܫܬܵܐ ܟܠܗܘܿܢ ܐܸܟܘܵܬܵܐ :

( ܡܘܼܣܝܼܩܝ ، ܓܐܘܿܡܛܪܝܼܐ ، ܥܲܪܒܵܝܵܐ ، ܣܘܼܪܝܵܝܵܐ ) ܐܵܘ ܗܲܕܵܡܹ̈ܐ ܝܘܼܠܦܵܢܵܐ ܡܫܲܘܬܦܵܐ ܐܸܟܘܵܬܵܐ



{ ܘܪܕܐ ، ܚܘܪܐ }
ܟܢܘܫܬܐ ܚܕܬܐ ( ܓ ) ܦܝܫܐ
ܗܕܝܐ ܟܢܘܫܬܐ ܕܚܘܝܕܐ ܐ ، ܒ
ܘܪܫܘܡܐ ܕܚܘܝܕܐ ܝܠܗ ∪ ܘܡܬܩܪܝܐ
ܐ ∪ ܒ ܘܡܩܪܝܐ ܐ ܚܘܝܕܐ ܒ .

ܡܬܠܐ ( ٢١ ) :
ܐܢ ܗܘܝܐ ܐ = { ٢ ، ٤ ، ٦ ، ٨ } ، ܒ = { ٦ ، ٩ ، ١٢ }
ܐ ∪ ܒ = { ٢ ، ٤ ، ٦ ، ٨ ، ٩ ، ١٢ }




ܡܬܠܐ ( ٢٢ ) :
ܐܢ ܟܠ ܗ ، ܙ ܟܢܘܫܬܐ ܗܘܝܐ
ܗ = { ٥ ، ٧ ، ٩ }
ܙ = { ٤ ، ٦ ، ٨ }
ܗܘܝܐ ܗ ∪ ܙ = { ٥ ، ٧ ، ٩ ، ٤ ، ٦ ، ٨ }




ܡܬܠܐ ( ٢٣ ) :
ܡܬܠܬܐ ܕܫܡܗ ܐܒܓ
ܦܠܓܐ ܕܚܘܝܕܐ ܕܡܬܠܬܐ ܡܬܚܙܐ ܗܟܢܐ
$\overline{ܐܒ} \cup \overline{ܒܓ} \cup \overline{ܐܓ}$
ܘܓܘܢܝܗ

ܚܘܝܕܐ ܕܬܪܬܝܢ ܟܢܘܫܝܬܐ ܐ ، ܒ ܝܠܗ ܟܢܘܫܬܐ ܕܟܠܗ ܐܣܛܘܟܣܐ
ܡܬܢܣܒܝ ܠܐ ، ܠܒ ܕܠܐ ܬܢܝܐ ܕܐܣܛܘܟܣܐ .

## ܕܘܪܫܐ ( ١ - ٧ )

( ١ ) ܐܫܟܚ ܠܚܘܝܕܐ ܕܣܘܓܐܐ ܕܟܠ ܚܕܐ ܡܢ ܚܘܝܕܬܐ ܕܠܬܚܬ :

ܐ - { ٣ ، ٥ ، ٦ ، ٧ } ∪ { ٥ ، ٦ ، ٩ } =

ܒ - { ٧ ، ٩ ، ٣ ، ٥ } ∪ { ٩ ، ٣ ، ٥ ، ٤ } =

ܓ - { ١ ، ٥ ، ٢ ، ٣ } ∪ { ٤ ، ٥ } =

( ٢ ) ܐܫܟܚ ܚܘܝܕܐ ܕܣܘܓܐܐ ܘܦܘܓܥܬܐ ܕܟܠ ܚܕܐ ܡܢ ܣܘܓܐܐ ܕܠܬܚܬ

ܐ ) { ١ ، ٢ ، ٣ } ، { ٣ ، ٤ ، ٥ }

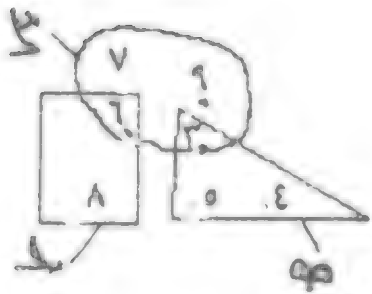
ܒ ) { ܗܐܘܪܐ ، ܦܪܡܘܗ ، ܫܠܝܡܘܢ ، ܘܪܕܐ } ، { ܫܠܝܡܘܢ ، ܘܪܕܐ ، ܦܪܘܣ }

ܓ ) { ܟܪܟܘܟ ، ܢܝܢܘܐ ، ܐܘܪܗܝ ، ܡܪܕܝܢܐ } ، { ܢܝܢܘܐ ، ܟܪܟܐ }

( ٣ ) ܐܡܠܝ ܟܠ ܡܢ ܦܬܓܡܐ ܕܠܬܚܬ ܒܡܦܩܢܘܬܐ ܕܨܘܪܬܐ

ܗ = { ٤ ، ٣ ، ٥ } ، ܨ = { .........

ܟ = { ......... ، ܗ ∪ ܨ = { .........




ܗ ∩ ܨ = { ......... ،

ܗ ∪ ܟ = { .........

ܨ ∩ ܟ = { .........

( ٤ ) ܐܫܟܚ ܠܡܢܝܢܐ ܕ ( ܗ ) ܒܟܠ ܦܬܓܡܐ ܕܐܬܐ :

ܐ - { ٥ ، ٧ ، ٩ } ∩ { ܗ ، ٣ ، ٤ } = { ٥ }

ܒ - { ٢ ، ٤ ، ٦ } ∪ { ٢ ، ٤ ، ܗ } = { ٢ ، ٤ ، ٦ ، ٧ }

ܓ - { ١ ، ٢ ، ٣ } ∩ { ٥ ، ٧ ، ٣ } = { ܗ }

ܕ - { ٣ ، ٦ ، ٩ } ∪ { ٤ ، ٨ ، ܗ } = { ٣ ، ٦ ، ٩ ، ٤ ، ٨ ، ١٢ }

# ܦܣܘܩܐ ܬܪ̈ܝܢܐ

# ܡܘܬܪܘܬܐ ܥܠ ܚܝ̈ܘܬܐ ܒܝ̈ܬܝܐ

[ ٢ ـ ١ ] ܦܠܚܘܬܐ ܕܐܪܥܐ

[ ٢ ـ ٢ ] ܦܠܚܘܬܐ ܥܠ ܚܝ̈ܘܬܐ ܡܬܘܪ̈ܝܐ

ܡܢ ܬܪܝܢ ܐܘ ܬܠܬܐ ܪ̈ܓܠܐ

[ ٢ ـ ٣ ] ܦܠܚܝܢܐ ܘܦܠܚ ܥܠܘ

## ٢ ـ ١ ܦܠܓܘܬܐ ܐܪܝܟܬܐ

ܒܕܠܠܘܗܝ ܒܡܢܝܢܐ ܣܡܝܟܐ ܗܘܟܠܐ ܘܐܘܪܚܐ ܕܦܠܓܘܬܐ ܕܡܢܝܢܐ ܥܠ ܡܢܝܢܐ ، ܘܒܕܠܠܘܗܝ ܥܠܬܐ ܕܟܬܒܬܐ ܕܗܫܡܫܬܢܘܬܐ ܕܟܘܦܦܐ ܘܟܘܪܟܐ ܠܗ ܣܕܘܪܝܐ ܕܦܠܓܘܬܐ ، ܘܒܡܢܝܢܐ ܟܡܝܬܐ ܒܟܠܚܕ ܠܗܫܡܫܬܢܘܬܐ ܕܦܠܓܘܬܐ ܒܐܘܪܚܐ ܐܝܟ ܐܪܝܟܬܐ .

ܢܡܘܢܐ ܐ :

ܡܬܠܐ ( ١ ) :

ܡܐ ܦܠܛܐ ܕܦܠܓܘܬܐ ܕܡܢܝܢܐ ٨٣٤ ܥܠ ٦ ؟

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    ١
٦ | ٨٣٤
    ٦
    --
    ٢
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ܫܪܝܐ : ܩܕܡ ܟܠܡܕܡ ܦܫܛܝܢܢ ܪܫܡܐ ܕܦܠܓܘܬܐ

( ١ ) ( ٨ ) ܡܐܘܬܐ ܦܠܓܐ ܥܠ ٦ ،

ܦܠܛܐ ( ١ ) ܡܐܐ ܘܦܝܫܐ ١ ܒܕܘܟܬܐ ܕܡܐܘܬܐ .

١ ( ܡܐܐ ) × ٦ = ٦ ( ܡܐܘܬܐ ) ،

ܦܝܫܐ ܒܕܘܟܬܐ ܕܡܐܘܬܐ .

( ٢ ) ܡܚܝܪܝܢ ٦ ( ܡܐܘܬܐ ) ܡܢ

٨ ( ܡܐܘܬܐ ) ܦܠܛܐ ٢ ( ܡܐܐ )

( ٣ ) ٢٣ ( ܥܣܪܐ ) ܦܠܓܝܢ ٦ ،

ܦܠܛܐ ٣ ( ܥܣܪܬܐ )

ܦܝܫܝܢ ٣ ܒܕܘܟܬܐ ܕܥܣܪܬܐ .

٣ ( ܥܣܪܬܐ ) × ٦ = ١٨ ( ܥܣܪܐ )

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    ١٣
٦ | ٨٣٤
    ٦
    --
    ٢٣
    ١٨
    --
    ٠٥
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ܦܝܫܝܢ ١٨ ، ٨ ܒܕܘܟܬܐ ܕܥܣܪܬܐ

ܘ ١ ܒܕܘܟܬܐ ܕܡܐܘܬܐ ܒܬܪ ١٨

ܥܣܪܐ = ٨ ܥܣܪܬܐ ܘܚܕ ܡܐܐ .

١٣٩
٦ | ٨٣٤
٦
٢٣
١٨
٥٤
٥٤
٠٠

( ٤ ) ܡܒܨܪܝܢ ١٨ ( ܥܣܪ̈ܐ ) ܡܢ ٢٣ ( ܥܣܪ̈ܐ ) ، ܦܠܛܐ ٥ ܥܣܪ̈ܐ .

( ٥ ) ٥٤ ( ܚܕ̈ܝܐ ) ܦܠܓ ٦ ، ܦܠܛܐ ٩

( ܚܕ̈ܝܐ ) ، ܟܬܒܝܢ ٩ ܒܕܘܟܬܐ ܕܚܕ̈ܝܐ

$9 \times 6 = 54$

( ٦ ) ܡܒܨܪܝܢ ٥٤ ܡܢ ٥٤ ، ܦܠܛܐ ܣܦܝܩܐ .

ܘܗܘܐ ܦܠܛܐ ܕܦܠܓܘܬܐ ١٣٩ .

ܚܘܫܒܐ ( ٢ )

ܡܐ ܝܠܗ ܦܠܛܐ ܕܦܠܓܘܬܐ ١٦٧٠ ܥܠ ٧ ؟

ܫܪܝܐ :

( ١ ) ١ ܐܠܦܐ ܠܐ ܦܠܝܓ ܥܠ ٧ ܒܕ ܗܘܐ ܒܕܘܟܬܐ ܕܐܠܦ̈ܐ ܦܠܛܐ ܡܢܘܬܐ

ܒܕܐܗܐ ܟܬܒܝܢ ܣܦܝܩܐ ܒܕܘܟܬܐ ܕܐܠܦ̈ܐ .

( ٢ ) ١٦ ( ܡܐܐ ) ܦܠܓ ٧ ، ܦܠܛܐ ٢ ( ܡܐܘܬ̈ܐ ) . ܟܬܒܝܢ ٢ ܒܕܘܟܬܐ

ܕܡܐܘܬ̈ܐ . ٢ ( ܡܐܘܬ̈ܐ ) × ٧ = ١٤ ( ܡܐܐ ) .

ܟܬܒܝܢ ١٤ ( ١ ܒܕܘܟܬܐ ܕܐܠܦ̈ܐ ، ٤ ܒܕܘܟܬܐ ܕܡܐܘܬ̈ܐ )

٠٢
٧ | ١٦٧٠
١٤
٠٢

٠٢٣
٧ | ١٦٧٠
١٤
٠٢٧
٢١
٠٦

( ٣ ) ܡܒܨܪܝܢ ١٤ ( ܡܐܐ ) ܡܢ ١٦ ( ܡܐܐ )

ܦܠܛܐ ٢ ( ܡܐܘܬ̈ܐ ) .

( ٤ ) ٢٧ ( ܥܣܪ̈ܐ ) ܦܠܓ ٧ ، ܦܠܛܐ ٣

٢٧ ( ܥܣܪ̈ܐ ) ، ٣ ( ܥܣܪ̈ܐ ) × ٧ = ٢١ ( ܥܣܪ̈ܐ ) .

ܟܬܒܝܢ ٢١ ( ١ ܒܕܘܟܬܐ

ܕܥܣܪ̈ܐ ، ٢ ܒܕܘܟܬܐ ܕܡܐܘܬ̈ܐ )

٠٢٣٨
٧ | ١٦٧٠
١٤
٠٢٧
٢١
٦٠
٥٦
٤

( ٥ ) ܡܲܟܝܼܪܸܢ ٢١ ( ܥܣܪ̈ܐ ) ܡܢ ٢٧ ( ܥܣܪ̈ܐ ) ، ܦܵܠܸܛܵܐ ٦ ( ܥܣܪ̈ܬܐ ) .

( ٦ ) ٦٠ ( ܚܕ̈ܝܘܬܐ ) ܦܵܠܓܸܢ ٧ ، ܦܵܠܸܛܵܐ ٨

( ܚܕ̈ܝܘܬܐ ) ٨ ( ܚܕ̈ܝܘܬܐ ) × ٧ = ٥٦ ( ܚܕ̈ܝܘܬܐ ) ܟܵܬܒܸܢ ٥٦

( ٧ ) ܡܲܟܝܼܪܸܢ ٥٦ ܡܢ ٦٠ ، ܦܵܠܸܛܵܐ ٤

ܘܗܵܘܹܐ ܦܵܠܸܛܵܐ ܕܦܠܓܘܼܬܵܐ ٢٣٨ ܘܦܪ̈ܝܫܐ ٤ .

## ܕܘܼܪܵܫܵܐ ( ٢ ـ ١ )

ܐܲܥܒܸܕ ܦܘܼܠܵܓܵܐ ܕܟܠ ܚܕ ܡܢ ܗܵܢܵܐ ܕܐܵܬܹܐ :

| | | | |
|---|---|---|---|
| ١/ | ٧٨ ÷ ٣ = | ٦/ | ١٤١٧ ÷ ٩ = |
| ٢/ | ٩٥ ÷ ٤ = | ٧/ | ٩٢٥٠ ÷ ٧ = |
| ٣/ | ١٢٣. ÷ ٨ = | ٨/ | ٨٦٤٢ ÷ ٣ = |
| ٤/ | ٩٣٤ ÷ ٧ = | ٩/ | ٨٤٢٧ ÷ ٦ = |
| ٥/ | ١٢٣٨٢ ÷ ٦ = | ١٠/ | ٩٦٨٣٤ ÷ ٨ = |

*———————————————*

## ٢ ـ ٢ ܦܠܓܘܼܬܵܐ ܥܲܠ ܡܸܢܝܵܢܹ̈ܐ ܕܡܸܢܘܼܗ ܡܫܘܼܡܵܝܵܐ ܡܢ ܬܪܹܝܢ ܕܡܸܫܚܵܐ ܐܵܘ ܬܠܵܬܵܐ ܕܡܸܫܚܵܐ

ܛܘܼܦܣܵܐ ( ١ ) :

ܡܵܐ ܦܵܠܸܛܵܐ ٢٢٥٧٦ ÷ ٣٩

ܚܠܵܐ :

```
   ٠٠٥
٣٩ |٢٢٥٧٦
    ١٩٥
    ---
     ٣٠
```

( ١ ) ܦܵܠܓܸܢ ܠܪܸܫܵܝܵܬܵܐ ( ٢٢٥ ܡܐܐ )

ܒܘܼܫ ٢٢ ܙܥܘܿܪܵܐ ܡܢ ٣٩ ، ܗܵܘܹܐ

ܦܵܠܸܛܵܐ ٥ ( ܡܐܐ ) .

٥ (ܡܐܐ) × ٣٩ = ١٩٥ ܡܐܐ

ܡܒܨܪܝܢ ١٩٥ (ܡܐܐ) ܡܢ (٢٢٥) ܡܐܐ ܒܗܘܐ ܦܠܛܐ ٣٠ (ܡܐܐ) .

(٢) ܦܠܛܝܢ ܥܣܪ̈ܬܐ (٣٠٧ ܥܣܪ̈ܬܐ)

ܒܗܘܐ ܦܠܛܐ ٧ (ܥܣܪ̈ܬܐ) ܩܒܥܐ

٧ ܒܕܘܟܬܐ ܕܥܣܪ̈ܬܐ .

٧ ܥܣܪ̈ܬܐ × ٣٩ = ٢٧٣ ܥܣܪ̈ܬܐ

ܡܒܨܪܝܢ ٢٣٧ (ܥܣܪ̈ܬܐ) ܡܢ ٣٠٧

(ܥܣܪ̈ܬܐ) ، ܦܠܛܐ ٣٤ (ܥܣܪ̈ܬܐ)

```
   ٠٠٥٧
٣٩ |٢٢٥٧٦
    ١٩٥
    ---
    ٣٠٧
    ٢٧٣
    ---
     ٣٤
```

(٣) ܦܠܛܝܢ ܚܕ̈ܢܝܬܐ (٣٤٦ ܚܕ̈ܢܝܬܐ) ܒܗܘܐ

ܦܠܛܐ ٨ (ܚܕ̈ܢܝܬܐ) ܘܩܒܥܐ ٨ ܒܕܘܟܬܐ ܕܚܕ̈ܢܝܬܐ .

٨ × ٣٩ = ٣١٢

(٤) ܡܒܨܪܝܢ ٣١٢ ܡܢ ٣٤٦ . ܦܫܬܐ ٣٤

ܘܗܘܐ ܦܠܛܐ ܕܦܠܓܘܬܐ ٥٧٨ ܘܦܫܬܐ ٣٤ .

```
   ٠٠٥٧٨
٣٩ |٢٢٥٧٦
    ١٩٥
    ----
    ٠٣٠٧
     ٢٧٣
    ----
    ٠٣٤٦
     ٣١٢
    ----
     ٠٣٤
```

ܛܘܦܣܐ (٢) :

ܡܐ ܦܠܛܐ ٥٠٧٢ ÷ ٣١٧

ܥܒܕܐ :

(١) ܠܝܬ ܒܦܠܛܐ ܕܦܠܓܘܬܐ ܐܠܦ̈ܐ ܘܠܐ

ܡܐܘܬܐ ܒܗܝ ٥ ܘܠܘܬ ٣١٧ ، ٥٠ ܘܠܘܬ ٣١٧

(٢) ٥٠٧ (ܥܣܪ̈ܬܐ) ܦܠܓܐ ܥܠ ٣١٧ ، ܦܠܛܐ

١ (ܥܣܪܐ) .

ܣܐܡܝܢ ١ ܒܕܘܟܬܐ ܕܥܣܪ̈ܬܐ .

(١) ܥܣܪܐ × ٣١٧ = ٣١٧ (ܥܣܪ̈ܐ)

ܡܒܨܪܝܢ ٣١٧ (ܥܣܪ̈ܐ) ܡܢ ٥٠٧ (ܥܣܪ̈ܬܐ) ܦܠܛܐ ١٩٠ (ܥܣܪ̈ܐ) .

```
    ٠٠١
٣١٧ |٥٠٧٢
     ٣١٧
     ---
     ١٩٠
```

```
      ٠.٠١٦
٣١٧ | ٥.٠٧٢
      ٣١٧
      ١٩٠٢
      ١٩٠٢
      ٠٠٠٠
```

( ٣ ) ١٩٠٢ ܦܠܘܓ ٣١٧ ، ܦܠܓܐ ٦ ( ܚܕ̈ܝܬܐ ) .

ܟܬܘܒ ٦ ܒܕܘܟܬܐ ܕܚܕ̈ܝܬܐ .

٦ × ٣١٧ = ١٩٠٢ .

ܡܒܨܪܝܢ ١٩٠٢ ܡܢ ١٩٠٢ ، ܒܗܘ ܗܘܐ ܦܠܓܐ

ܫܠܡܐ ܘܦܠܓܐ ܕܦܠܘܓܘܬܐ ١٦

ܡܬܠܐ ( ٣ ) :

ܡܢܘ ܦܠܓܐ ٩٢١١٥ ÷ ٣٤٥

```
        ٢
      ٠٠٢
٣٤٥ | ٩٢١١٥
      ٦٩٠
      ٢٣١
```

ܫܪܝܐ :

( ١ ) ܠܝܬ ܒܦܠܓܐ ܕܦܠܘܓܘܬܐ ܪ̈ܒܘܬܐ

ܕܐܠܦܐ ܒܗܘ ٩ ܘܙܥܘܪ ܡܢ ٣٤٥

ܘܠܝܬ ܒܦܠܓܐ ܕܦܠܘܓܘܬܐ ܐܠܦܐ

ܒܗܘ ٩٢ ܘܙܥܘܪ ܡܢ ٣٤٥

```
      ٠٠٢٦
٣٤٥ | ٩٢١١٥
      ٦٩٠
      ٢٣١١
      ٢٠٧٠
      ٢٤١
```

( ٢ ) ٩٢١ ( ܡܐ̈ܐ ) ܦܠܘܓ ٣٤٥ ، ܢܦܩ ٣ ،

ܠܐ ܫܪܝܪܐ ، ܢܦܩ ٢ .

٢ ( ܡܐ̈ܐ ) × ٣٤٥ = ٦٩٠ ، ܡܒܨܪܝܢ ٦٩٠

( ܡܐ̈ܐ ) ܡܢ ٩٢١ ( ܡܐ̈ܐ ) ܦܠܓܐ ٢٣١ ( ܡܐ̈ܐ ) .

```
      ٠٠٢٦٧
٣٤٥ | ٩٢١١٥
      ٦٩٠
      ٢٣١١
      ٢٠٧٠
      ٢٤١٥
      ٢٤١٥
      ٠٠٠٠
```

( ٣ ) ٢٣١١ ( ܥܣܪ̈ܬܐ ) ܦܠܘܓ ٣٤٥ .

ܢܦܩ ٧ ܘܟܕ ٧ × ٣٤٥ = ٢٤١٥ ܪܒ ٢٤١٥

ܪܒ ܡܢ ٢٣١١ ܢܦܩ ٦

٦ ( ܥܣܪ̈ܬܐ ) × ٣٤٥ ( ܥܣܪ̈ܐ ) = ٢٠٧٠ ( ܥܣܪ̈ܐ )

ܡܒܨܪܝܢ ٢٠٧٠ ( ܥܣܪ̈ܬܐ ) ܡܢ ٢٣١١

( ܥܣܪ̈ܐ ) ، ܦܠܓܐ ٢٤١ ( ܥܣܪ̈ܐ )

( ٤ ) ٢٤١٥ ( ܚܕܡܘܬܐ ) ܦܠܘܓ ٣٤٥ ܢܦܩ

٨ ܠܐ ܡܬܟܫܐ ، ܢܦܩ ٧

٢٤١٥ = ٣٤٥ × ٧

ܡܒܨܪܝܢ ٢٤١٥ ܡܢ ٢٤١٥

ܦܠܓܐ ܫܠܡܐ ، ܗܘܝܘ ܦܠܓܐ

ܕܦܠܓܘܬܐ ٢٦٧

ܦܘܠܓܐ ( ٤ ) :

ܡܐ ܗܘ ܦܠܓܐ ١٣٠٤٩ ÷ ٥٣ ܥܡ ܒܚܪܐ ܕܡܫܪܝܘܬ ܦܘܫܐ

ܫܪܝܐ :

ܒܥܒܕܝܢ ܦܫܝܛܘܬܐ ܕܦܘܠܓܐ ܠܥܠܝܐ

ܘܗܘܝܘ ܦܠܓܐ ܕܦܠܓܘܬܐ :

| | |
|---|---|
| ٠٠٢٤٦ | |
| ١٣٠٤٩ | ٥٣ |
| ١٠٦ | |
| ٠٢٤٤ | |
| ٢١٢ | |
| ٠٣٢٩ | |
| ٣١٨ | |
| ١١ | |

١٣٠٤٩ ÷ ٥٣ = ٢٤٦ ܦܘܫܐ ( ١١ )

ܘܠܒܚܪܬܐ ܕܡܫܪܝܘܬ ܫܪܝܐ ܕܥܒܕܝܢ ܠܗܕܐ ܕܠܬܚܬ ܕܡܢܐ ܗܘܬ

ܒܣܕܪܐ ܠܥܠܝܐ .

| ܦܠܝܓܐ = ܦܠܓܐ ܕܦܠܓܘܬܐ × ܦܠܘܓ ܥܠܗ + ܦܘܫܐ |
|---|

ܦܠܝܓܐ ١٣٠٤٩ = ( ٢٤٦ × ٥٣ ) + ١١

= ١٣٠٣٨ + ١١

= ١٣٠٤٩ + ١١

= ١٣٠٤٩

## ܕܘܪܫܐ ( ٢ - ٢ )

( ١ ) ܐܫܟܚ ܠܦܠܓܘܬܐ ܕܗܠܝܢ ܕܘܪ̈ܫܐ :

١/ ٢٢١٥٠ ÷ ٩٣ =

٢/ ٣٠٧٦٤ ÷ ٥٦ =

٣/ ٨٩٣٥٥ ÷ ٣٧ =

٤/ ٢٤٦٨٨٣ ÷ ٧٥ =

٥/ ١٧٦٢٢٨ ÷ ٢٣ =

٦/ ٢٥٨٦ ÷ ٤٣١ =

٧/ ٩٢٧٥ ÷ ٢٦٥ =

٨/ ٦٨٤٠ ÷ ٢٨٥ =

٩/ ٤٣٥١٦ ÷ ٥٠٦ =

١٠/ ٨٧٦٠٠ ÷ ٣٦٥ =

( ٢ ) ܐܫܟܚ ܠܡܫܘܚܬܐ ܕܗܠܝܢ ܕܘܪ̈ܫܐ ܘܒܨܝ ܡܢ ܚܘܫܒܢܐ ܬܪ̈ܝܢ :

١/ ٣٥٨٦٢ ÷ ٥٥ =

٢/ ٧٥٩٥ ÷ ٢٤٧ =

(٣) ܬܓܪܐ ܥܡܗ ١٥٠٠٠ ܕܝܢܪܐ ، ܦܪܢܣܗ ܒܫܘܝܐ ܕܘܒܪܬܐ ܕ ٢١٧ ܝܘܡܬܐ
ܕܡܕܒܪܢܘܬܐ ، ܦܝܫܠܗܘܢ ܥܡܗ ٥٢٣٥ ܕܝܢܪܐ ، ܟܡܐ ܘܡܛܝܗ ܠܚܕܐ
ܝܘܡܐ ؟

(٤) ܗܕܐ ܡܕܝܢܬܐ ܦܠܚܐ ܕܟܘܦܦܣ ٣٢٦٨٠٨ ܘܟܠ ܡܕܝܢܬܐ ٦١٢ ، ܟܡܐ ܐܝܬܝܗ
ܡܕܝܢ̈ܬܐ ܐܚܪ̈ܢܝܬܐ ؟

(٥) ܘܟܡܐ ܬܓܪܐ ܕܬܪܥܬܐ ١٢٨ ܬܪܥܬܐ ܡܢ ܚܕ ܐܘܪܚܐ ܒܡܫܘܚܬܐ
١٢٦٠٨٠٠ ܕܝܢܪܐ ، ܟܡܐ ܘܡܛܝܗ ܠܚܕܐ ܬܪܥܬܐ ؟ ܘܟܡܐ ܗܘܐ ܡܢܝܢ
ܠܬܪܥܬܐ ܕܡܢܗ ܟܠܗ ٣٥٠ ܕܝܢܪܐ ؟

# ܦܣܘܩܐ ܬܠܝܬܝܐ

## ܡܢܝܢܐ ܫܠܡ̈ܐ ܘܡܢܝܢܐ ܡܣܪ̈ܝܐ

( ܗܢܐ ܘܫܘܫܠܬܐ ܕܫܘܡܠܝܘܬܐ ܕܟܘܢܫܐ ܘܚܘܣܪܐ ܘܟܘܦܦܐ
ܕܦܠܓܘܬܐ ܥܠ ܡܢܝܢܐ ܫܠܡ̈ܐ ܘܡܢܝܢܐ ܡܣܪ̈ܝܐ )

[ ٣ . ١ ] ܟܘܢܫܐ ܘܚܘܣܪܐ ܕܡܢܝܢܐ ܫܠܡ̈ܐ

[ ٣ . ٢ ] ܟܘܦܦܐ ܕܡܢܝܢܐ ܫܠܡ̈ܐ

[ ٣ . ٣ ] ܦܠܓܘܬܐ ܕܡܢܝܢܐ ܫܠܡ̈ܐ

[ ٣ . ٤ ] ܡܢܝܢܐ ܡܣܪ̈ܝܐ

[ ٣ . ٥ ] ܟܘܦܦܐ ܕܡܢܝܢܐ ܡܣܪ̈ܝܐ

[ ٣ . ٦ ] ܦܠܓܘܬܐ ܕܡܢܝܢܐ ܡܣܪ̈ܝܐ

[ ٣ . ٧ ] ܡܫܪܒܬܐ ܕܡܢܝܢܐ ܡܣܪ̈ܝܐ

# ܦܣܘܩܐ ܬܠܝܬܝܐ

## ܡ̈ܢܬܐ ܦ̈ܫܝܛܬܐ

( ܡܢܝܢܐ ܘܡܫܡܫܢܘܬܐ ܕܚܘܫܒܢܘܬܐ ܕܟܢܫܐ ܘܒܘܨܪܐ ܘܡܘܣܦܐ
ܘܦܠܓܘܬܐ ܥܠ ܡ̈ܢܬܐ ܦ̈ܫܝܛܬܐ ܘܡ̈ܢܬܐ ܥܣܪ̈ܢܝܬܐ )

٣ . ١ ܟܘܢܫܐ ܘܒܘܨܪܐ ܕܡ̈ܢܬܐ ܦ̈ܫܝܛܬܐ

ܡܬܠܐ ( ١ ) : ܐܫܟܚ ܠܡܦܩܬܐ

$$\frac{٩}{٣٢} + \frac{٧}{٤٨}$$

ܫܪܝܐ :

ܡܫܟܚܝܢ ܠܟܦܘܠܐ ܡܫܘܬܦܐ ܙܥܘܪܐ ܠܡܢܝ̈ܢܐ ٤٨ , ٣٢

ܟ . ܡ . ܙ ܠܡܢܝ̈ܢܐ ٤٨ , ٣٢ = $٢^{٥} \times ٣$

= ٣٢ × ٣

= ٩٦

| | |
|---|---|
| ٢ | ٤٨ ، ٣٢ |
| ٢ | ٢٤ ، ١٦ |
| ٢ | ١٢ ، ٨ |
| ٢ | ٦ ، ٤ |
| ٢ | ٣ ، ٢ |
| ٣ | ٣ ، ١ |
| | ١ ، ١ |

= ٩٦

$$\frac{٧}{٤٨} + \frac{٩}{٣٢} = \frac{١٤}{٩٦} + \frac{٢٧}{٩٦} = \frac{٤١}{٩٦}$$

(٢) (٣)

ܡܬܠܐ ( ٢ ) : ܐܫܟܚ ܠܡܦܩܬܐ

$$\frac{١١}{١٢} - \frac{٥}{٨}$$

ܡܫܟܚܢܐ ܕܟܦܘܠܐ ܡܫܘܬܦܐ ܙܥܘܪܐ ܠܡܢܝ̈ܢܐ ١٢ , ٨

ܫܪܝܐ :

ܟ . ܡ . ܙ ܠܡܢܝ̈ܢܐ ١٢ , ٨ ܗܝܘ $٢^{٣} \times ٣$ = ٨ × ٣ = ٢٤

$$\frac{١١}{١٢} - \frac{٥}{٨} = \frac{٢٢}{٢٤} - \frac{١٥}{٢٤} = \frac{٧}{٢٤}$$

(٢) (٣)

ܛܘܦܣܐ ( ٣ ) :

ܐܟܢܫ ܠܗܘܢܐ $٣\frac{١}{٤} + ٧\frac{١}{٣}$

ܫܪܝܐ : $٣\frac{١}{٤} + ٧\frac{١}{٣} = ٣\frac{٣}{١٢} + ٧\frac{٤}{١٢}$

( ܒܡܫܟܚܬܐ ܕܫܘܬܦܐ ܡܫܘܚܬܐ

ܘܗܘܐ ܠܡܢܝܢܐ ٤ , ٣ )

(٣) (٤)

$$= ١٠\frac{٧}{١٢}$$

ܘܐܝܬ ܐܘܪܚܐ ܐܚܪܬܐ ܠܫܪܝܐ ܐܝܟ ܕܐܬܐ :

$$٣\frac{١}{٤} + ٧\frac{١}{٣}$$

$$= \frac{١٣}{٤} + \frac{٢٢}{٣}$$

(٣) (٤)

( ܘܒܡܫܘܚܬܐ ܕܡܢܝܢܐ ܫܠܡܐ ܒܟܣܪܐ

ܐܚܪܢܐ ܒܐܣܟܡܐ ܕܦܠܓܐ )

$$= \frac{٣٩}{١٢} + \frac{٨٨}{١٢}$$

( ܒܡܫܟܚܬܐ ܕܫܘܬܦܐ ܡܫܘܚܬܐ

ܘܗܘܐ ܠܡܢܝܢܐ ٤ , ٣ )

$$= \frac{١٢٧}{١٢} = ١٠\frac{٧}{١٢}$$

ܛܘܦܣܐ ( ٤ ) : ܐܟܢܫ ܠܗܘܢܐ

$$٣\frac{٣}{٤} - ٢\frac{٢}{٥}$$

$ٖ٣\frac{٣}{٤} - ٢\frac{٢}{٥}$

| | |
|---|---|
| ٤ ، ٥ | ٢ |
| ٢ ، ٥ | ٢ |
| ١ ، ٥ | ٥ |
| ١ ، ١ | |

(٥) (٤)

$= ٣\frac{١٥}{٢٠} - ٢\frac{٨}{٢٠}$ ( ܒܡܫܟܚܬܐ ܕܡܟܝܠܬܐ ܡܫܘܬܦܬܐ
ܘܒܗܕܐ ܠܡ̈ܢܝܢܐ ٤ , ٥ )

$= ١\frac{٧}{٢٠}$

ܐܘܪܚܐ ܐܚܪܬܐ :

$٣\frac{٣}{٤} - ٢\frac{٢}{٥}$

$= \frac{١٥}{٤} - \frac{١٢}{٥} = \frac{٧٥}{٢٠} - \frac{٤٨}{٢٠}$

(٥) (٤)

$= \frac{٢٧}{٢٠} = ١\frac{٧}{٢٠}$

ܡܬܠܐ ( ٥ ) :

ܐܦܩ ܠܫܘܢܝܐ $٤٢٢\frac{١}{٣} - ٢٤١\frac{١}{٢}$

$٤٢٢\frac{١}{٣} - ٢٤١\frac{١}{٢}$

$= ٤٢٢\frac{٢}{٦} - ٢٤١\frac{٣}{٦}$ ( ܒܡܫܟܚܬܐ ܕܡܟܝܠܬܐ ܡܫܘܬܦܬܐ
ܘܒܗܕܐ ܠܡ̈ܢܝܢܐ ٣ , ٢ )

$= ٤٢١\frac{٨}{٦} - ٢٤١\frac{٣}{٦}$ ( ܒܫܩܠܬܐ ١ ܡܢ ܚܘܝܕ ܡܢܝܢ ܠܫܘܦܬܐ )

$= ١٨٠\frac{٥}{٦}$

ܡܬܠܐ ( ٦ ) : ܐܦܩ ܠܫܘܢܝܐ

$١٧ - ٩\frac{٣}{٨}$

$١٧ - ٩\frac{٣}{٨}$

$= 16\frac{8}{8} - 9\frac{3}{8}$ ܒܘܝ $1 = \frac{8}{8}$ ،

$= 7\frac{5}{8}$

ܡܬܠܐ ( ٧ ) : ܐܪܟܘܫ ܠܚܘܝܕܐ

$$\frac{1}{2} + \frac{1}{3} - \frac{1}{4}$$

$\frac{1}{2} + \frac{1}{3} - \frac{1}{4}$ ( ܡܢܝܢܐ ܕܠܚܕܐ ܡܫܘܚܬܐ ܘܬܘܪܐ ܠܡܢܝܢܐ ٢ , ٣ , ٤ ) ܗܘܝܘ ١٢

(٦) (٤) (٣)

$$= \frac{6}{12} + \frac{4}{12} - \frac{3}{12}$$

$$= \frac{10}{12} - \frac{3}{12}$$

$$= \frac{7}{12}$$

## ܕܪܫܐ ( ٣ - ١ )

( ١ ) ܐܪܟܘܫ ܚܘܝܕܐ ܕܟܠ ܚܕ ܡܢ ܗܕܐ ܕܐܬܐ :

ܐ/ $2\frac{2}{3} + 1\frac{8}{9}$     ܗ/ $17\frac{11}{15} + 8\frac{7}{9}$

ܒ/ $3\frac{5}{8} + 1\frac{7}{12}$     ܘ/ $\frac{1}{4} + \frac{3}{5} - \frac{1}{6}$

ܓ/ $6\frac{3}{7} - 4\frac{5}{8}$     ܙ/ $2\frac{1}{2} - 1\frac{1}{4} + 3\frac{1}{5}$

ܕ/ $4\frac{8}{12} + 3\frac{2}{5}$     ܚ/ $3\frac{1}{5} + 7\frac{1}{4} - \frac{7}{20}$

( ٢ ) ܗܕܝ ܓܪܘܒܐ ܕܡܝܬܐ ܚܕܐ ܦܘܪܫܐ ܠـ $3\frac{7}{8}$ ܟܝܠܘܓܪܡܐ ، ܘܚܕܐ ܕܗܕܝ $11\frac{1}{10}$ ܟܝܠܘܓܪܡܐ ، ܡܐ ܟܡܐ ܕܡܝܬܐ ܒܬܪܬܝܗܘܢ ܓܪܘܒܐ ؟

(٣) ܦܠܛܝܪܐ ܐܝܬܠܗ ܒܟܝܣܘܬܐ ܕܦܩܪܣܬܐ $\frac{٣}{٤}$ ٥ ܕܝܢܪܐ، ܙܒܢܠܗ ܡܢܗ $\frac{١}{٤}$ ٢ ܕܝܢܪܐ، ܟܡܐ ܦܝܫܠܗܘܢ ܒܗ ܒܟܝܣܘܬܐ ؟

(٤) ܘܪܝܠܗ ܟܒܒܪܐ $\frac{١}{٢}$ ܣܥܠܘܟܪܬܐ ܡܢ ܥܒܐ ܘܟܒܪܠܗ ܘܪܝܠܗ $\frac{١}{٤}$ ܣܥܠܘܟܪܬܐ ܡܢܗ، ܟܡܐ ܒܠܗ ܒܫܘܬܐ ܕܪܝܠܗ ܐܗܐ ܟܒܒܪܐ ؟

(٥) ܐܝܬܠܗ ܐܒܪܐ ܡܝܠܐ ܕܟܦܪܐ ܘܙܒܢܠܗ ܒܫܒܬܗ ܚܝܠܐ ܘܡܘܠܬܗ ܦܠܛܪܐ ܘ $\frac{٥}{١٢}$ ܡܢܗ ܚܝܠܐ ܙܘܛܐ، ܡܐ ܒܠܗ ܒܫܘܬܐ ܕܐܪܬܐ ܘܙܒܢܬܐ ؟

(٦) ܗܐܠܐ ܒܘܪܟܗ $\frac{٧}{٨}$ ٢ ܡܝܬܪܐ ܡܝܠܠܢ ܡܢܗ $\frac{٣}{٤}$ ١ ܡܝܬܪܐ. ܡܐ ܒܘܪܟܐ ܕܡܢܬܐ ܦܫܝܬܐ ؟

(٧) ܟܠܐ ܕܫܒܬܐ ܘܗܘ ܡܦܩܐ $\frac{١}{٤}$ ٩ ܣܥܠܘܟܪܬܐ ܘܡܝܠ ܘܗܘ ܡܠܐܐ ܒܘܫܬܐ $\frac{٢}{٥}$ ٢٦ ܣܥܠܘܟܪܬܐ، ܡܐ ܡܠܗ ܒܘܡܪܐ ܕܘܫܬܐ ܕܟܠܗ ؟

(٨) ܡܘܟܪܥܠܗ ܟܝܘܫܬܐ ܒܫܒ ܣܘܡܝܗ ٥ ܥܠܬܐ ، ܐ. ܡܘܟܪܥܠܗ $\frac{٥}{٦}$ ܥܠܬܐ ܒܦܢܝܫܬܐ ܘܡܠܝܬܐ ܕܟܝܫܬܐ ܒܫܡܪܝܬܐ، ܟܡܐ ܥܠܬܐ ܡܘܟܪܥܠܗ ܠܗ ܐܚܝܪܐ ؟

(٩) ܠܗܘ ܫܝܠܐ ܡܝܠܠܐ ܡܢ ܦܪܡܐ ܒܘܪܟܗ $\frac{١}{٢}$ ١٧ ܡܝܬܪܐ ܡܝܠܠܠܗ ܡܢܗ $\frac{١}{٤}$ ٣ ܡܝܬܪܐ ܠܫܝܠܬܐ ܕܗܘܕܪܐ ܒܝ ܡܝܠܠܠܗ $\frac{١}{٥}$ ٣ ܡܝܬܪܐ ܠܫܝܠܬܐ ܕܗܘܕܪܐ ܐܚܪܬܐ، ܡܐ ܡܠܗ ܒܘܪܟܐ ܕܦܫܝܐ ܡܢܗ ؟

(١٠) ܙܒܢܠܗ ܟܒܪܐ ܠܟܘܡܐ ܘܡܢܗ $\frac{١}{٤}$ ٢٨ ܕܝܢܪܐ ܘܙܒܢܠܗ ܗܒܫܘܬܐ ܠܒܢܘܗܝ ܒܫܒܘܬܐ $\frac{١}{٢}$ ١١ ܕܝܢܪܐ ܘܙܒܢܠܗ ܠܒܢܬܗ ܗܘܕܪܐ ܒܫܒܘܬܐ $\frac{٣}{٤}$ ٥ ܕܝܢܪܐ، ܟܡܐ ܨܪܦܠܗ ؟ ܟܡܐ ܦܝܫܠܗܘܢ ܡܢܗ ؟

(١١) ܡܘܦܪܐ ܠܗ ܒܘܫܢܐ $\frac{٣}{٤}$ ٣ ܕܝܢܪܐ ܒܫܒܘܥܐ ܩܕܡܝܐ ܘܡܘܦܪܐ ܠܗ ܒܫܒܘܥܐ ܬܪܝܢܐ $\frac{١}{٢}$ ٢ ܕܝܢܪܐ ܘܒܫܒܘܥܐ ܬܠܝܬܝܐ ܡܘܦܪܐ ܠܗ $\frac{٤}{٥}$ ٥ ܕܝܢܪܐ، ܟܡܐ ܡܘܦܪܐ ܠܗ ܒܬܠܬܗܘܢ ܫܒܘܥܐ ؟

## ٣ . ٢ ܡܘܦܩܐ ܕܦܬܬ̈ܐ ܦܫܝܛ̈ܐ

ܡܘܬܠܐ ( ١ ) :

ܐܫܟܚ ܠܡܘܦܩܐ :

$$\frac{٣}{٥} \times \frac{٢}{٧}$$

ܫܪ̈ܝܐ :

$$\frac{٣}{٥} \times \frac{٢}{٧} = \frac{٣ \times ٢}{٥ \times ٧} = \frac{٦}{٣٥}$$

( ܒܡܘܦܩܐ ܕܥܠܝ̈ܐ ܥܡ ܚܕܕܐ ܘܬܚܬܝ̈ܐ ܥܡ ܚܕܕܐ )

ܡܘܬܠܐ ( ٢ ) :

ܐܫܟܚ ܠܡܘܦܩܐ : $٢\frac{١}{٥} \times ٦\frac{١}{٤}$

ܫܪ̈ܝܐ :

$$٢\frac{١}{٥} \times ٦\frac{١}{٤} = \frac{١١}{٥} \times \frac{٢٥}{٤}$$

( ܒܫܘܚܠܦܐ ܕܡܢܝܢ̈ܐ ܡܚܠܛ̈ܐ ܠܦܬܬ̈ܐ ܠܐ ܫܪܝܪ̈ܐ )

$$= \frac{١١}{\not{٥}_{١}} \times \frac{\not{٢٥}^{٥}}{٤}$$

$$= \frac{٥٥}{٤} = ١٣\frac{٣}{٤}$$

ܛܘܦܣܐ (٣):

ܐܫܟܚ ܠܡܘܬܒܐ: $\frac{5}{8} \times \frac{16}{41} \times \frac{1}{5}$

ܫܪܝܐ: $\frac{\cancel{5}^{1}}{\cancel{8}_{1}} \times \frac{\cancel{16}^{2}}{41} \times \frac{1}{\cancel{5}_{1}}$

$= \frac{2}{41}$ ( ܗܳܕ݂ܐ ܗܘ ܡܚܕܢܘܬܐ ܕܠܘܬܐ )

ܛܘܦܣܐ (٤):

ܦܬܝܐ ܡܫܝܚܬܐ ܡܘܪܟܗ ٣ $\frac{1}{4}$ ܡܝܛܪ̈ܐ ܘܦܬܝܘܬܗ ٢ $\frac{1}{5}$ ܡܝܛܪ̈ܐ ، ܡܐ
ܝܠܗ ܫܛܝܚܘܬܗ ؟

ܫܪܝܐ:

$$3\frac{1}{4} \times 2\frac{1}{5}$$

$$= \frac{13}{4} \times \frac{11}{5}$$

$$= \frac{143}{20} = 7\frac{3}{20}$$ ܡ² ܫܛܝܚܘܬܐ ܕܦܬܝܐ ܡܫܝܚܬܐ

ܛܘܦܣܐ (٥):

ܟܝܣܐ ܟܝܠܗ ܡܢܝܢܐ ܕܦܠܣܐ ١٨٠ ܦܠܣܐ ، ܬܘܠܬܗ ܦܠܣܐ ܕܕܗܒܐ
ܘܚܘܡܫܗ ܦܠܣܐ ܕܣܐܡܐ ، ܡܐ ܝܠܗ ܡܢܝܢܐ ܕܦܠܣܐ ܕܕܗܒܐ ،
ܘܕܣܐܡܐ ؟

ܫܪܝܐ:

$$\frac{1}{\cancel{3}_{1}} \times \cancel{180}^{60} = 60$$ ܡܢܝܢܐ ܕܦܠܣܐ ܕܕܗܒܐ

$$\frac{1}{\cancel{5}_{1}} \times \cancel{180}^{36} = 36$$ ܡܢܝܢܐ ܕܦܠܣܐ ܕܣܐܡܐ

## ܕܘܪܫܐ ( ٣ ـ ٢ )

( ١ ) ܐܫܟܚ ܣܘܟܡܐ ܕܟܠ ܡܢ ܚܕ ܕܐܬܐ :

ܐ ) $\frac{3}{7} \times \frac{5}{6}$      ܒ ) $19\frac{1}{7} \times \frac{49}{75}$

ܓ ) $6\frac{1}{4} \times \frac{2}{5}$      ܕ ) $7\frac{1}{8} \times 11\frac{7}{10} \times \frac{15}{19}$

( ٢ ) ܠܚܕܐ ܡܚܝܛܢܝܬܐ $18\frac{3}{5}$ ܡܝܬܪ̈ܐ ܡܢ ܩܛܝܢܐ ، ܡܘܦܠܚܠܗ̇ $5\frac{1}{4}$ ܡܝܬܪ̈ܐ ܠܚܝܛܬܐ ܕܫܘܦܪܐ ܠܒܪܬܗ̇ ܘ $6\frac{1}{2}$ ܡܝܬܪ̈ܐ ܠܚܝܛܬܐ ܕܠܒܘܫܐ ܠܒܪܘܢܗ̇ ، ܟܡܐ ܡܝܬܪ̈ܐ ܦܫܠܗܘܢ ܠܗ̇ ؟

( ٣ ) ܛܝܣ ܛܝܣܬܐ ܥܠ ܕܪܓܗ̇ ܡܘܪܒܐ $22\frac{1}{2}$ ܟܝܠܘܡܝܬܪ̈ܐ ܒܫܥܬܐ ، ܟܡܐ ܟܝܠܘܡܝܬܪ̈ܐ ܒܪܫܝܡ ܒܗ̇ $2\frac{1}{3}$ ܫܥ̈ܐ ؟

( ٤ ) ܐܝܬ ܠܒܝܬ ܚܕ ܚܩܠܐ ܕܘܠܒܐ ܢܫܒܐ $14\frac{1}{4}$ ܟܝܠܘܓܪܡ ܡܢ ܡܫܚܐ ، ܘܙܒܢܠܗ ܡܢܗ $7\frac{3}{5}$ ܟܝܠܘܓܪܡ ، ܟܡܐ ܟܝܠܘܓܪܡ ܦܫܠܗܘܢ ܠܗ̇ܘ ؟

( ٥ ) ܡܫܚܬܐ ܕܒܪܬܐ ܝܘܪܒܗ $2\frac{3}{4}$ ܡܝܬܪ̈ܐ ، ܟܡܐ ܗܘܝܐ ܝܘܪܒܐ ܕ ٢٢ ܡܫܚܬܐ ܡܢܗ ؟

## ٣ - ٣ ܦܠܓܘܬܐ ܕܡܢܝܢܐ ܦܫܝܛܐ

## ܡܠܒܢܐ ܕܡܢܝܢܐ

ܢܕܚܘܣ ܕ $\frac{\cancel{٣}^{\,١}}{\cancel{٤}_{\,١}} \times \frac{\cancel{٤}^{\,١}}{\cancel{٣}_{\,١}} = \frac{١}{١} = ١$

ܦܠܓܘܬܐ ܐܡܝܪܬܐ $\frac{٣}{٤}$ ܐܝܬܝܗ ܡܠܒܢܐ ܕܡܢܝܢܐ $\frac{٤}{٣}$

ܘܦܠܓܘܬܐ ܐܡܝܪܬܐ ܡܬܒܕܪܐ ܕܡܠܒܢܐ ܡܢܝܢܐ $\frac{٥}{٧}$ ܐܝܬܝܗ $\frac{٧}{٥}$

ܘܠܗܕܐ :

| ܦܠܓܘܬܐ ܕܟܘܦܦܐ ܕܟܠ ܡܢܝܢܐ ܒܡܠܒܢܐ ܗܘܐ ١ |
|---|

ܡܘܬܒܐ ( ١ ) ܐܫܟܚ :

$$\frac{٥}{٧} \div \frac{٣}{٤}$$

ܥܒܕܐ : $\frac{٥}{٧} \div \frac{٣}{٤} = \frac{\triangle}{\bigcirc}$

ܫܒܘܩ ܗܘܐ :

$$\frac{٣}{٤} \times \frac{\triangle}{\bigcirc} = \frac{٥}{٧}$$

ܘܐܗܐ ܗܘܟܢܐ (ܦܠܓܐ ܐܝܬܘ × ܦܠܓܐ ܕܦܠܓܘܬܐ = ܦܠܓܢܐ)

ܘܟܘܦܦܐ ܕܡܢܝܢܐ ܒܬܪܝܢ ܒ $\frac{٤}{٣}$ (ܡܠܒܢܐ $\frac{٣}{٤}$ ) ܦܠܓܐ

$$\frac{\cancel{٣}^{\,١}}{\cancel{٤}_{\,١}} \times \frac{\cancel{٤}^{\,١}}{\cancel{٣}_{\,١}} \times \frac{\triangle}{\bigcirc} = \frac{٥}{٧} \times \frac{٤}{٣}$$

$$١ \times \frac{\triangle}{\bigcirc} = \frac{٥}{٧} \times \frac{٤}{٣}$$

$$\frac{٤}{٣} \times \frac{٥}{٧} = \frac{\triangle}{\bigcirc}$$

$$\frac{٢٠}{٢١} =$$

ܘܡܠܘܢܝܐ :

| ܠܗ ܦܠܓܬܐ ܕܡܢܬܐ ܥܠ ܡܢܬܐ ܒܚܒܪܗ ܗܘܦܟܐ ܕܡܢܬܐ ܦܠܓܝܐ ܒܡܠܝܬܐ ܕܡܢܬܐ ܦܠܓܝܐ ܬܢܝܢܐ . |
|---|

ܛܘܦܣܐ ( ٢ ) :

$$١\frac{١}{٢} = \frac{٣}{٢} = \frac{\cancel{٥}^{\,١}}{٢} \times \frac{\cancel{٩}^{\,٣}}{\cancel{\cancel{١٥}_{\,٣}}_{\,١}} = \frac{٢}{٥} \div \frac{٩}{١٥}$$

ܛܘܦܣܐ ( ٣ ) :

$$١\frac{٥}{١٤} \div ٢\frac{٤}{٧}$$

$$\frac{١٩}{١٤} \div \frac{١٨}{٧} =$$

$$١\frac{١٧}{١٩} = \frac{٣٦}{١٩} = \frac{\cancel{١٤}^{\,٢}}{١٩} \times \frac{١٨}{\cancel{٧}_{\,١}} =$$

ܛܘܦܣܐ ( ٤ ) :

$$\frac{١}{٥} + \frac{١}{٣} - \frac{٤}{٥} \times \frac{٢}{٣}$$

$$\frac{١}{٥} + \frac{١}{٣} - \frac{٨}{١٥} =$$

$$\underset{(٣)}{\phantom{x}} \quad \underset{(٥)}{\phantom{x}} \quad \underset{(١)}{\phantom{x}}$$

$$\frac{٣}{١٥} + \frac{٥}{١٥} - \frac{٨}{١٥} =$$

$$= \frac{٨ - ٥ + ٣}{١٥} = \frac{٣ + ٣}{١٥} = \frac{\overset{٢}{\cancel{٦}}}{\underset{٥}{\cancel{١٥}}} = \frac{٢}{٥}$$

ܡܘܦܩܐ ( ٥ ) :

$$\frac{١}{٢} \times \frac{١}{٣} + \frac{٣}{٤} \div \frac{١}{٢}$$

$$= \left( \frac{١}{٢} \times \frac{١}{٣} \right) + \left( \frac{٣}{\underset{٢}{\cancel{٤}}} \times \frac{\overset{١}{\cancel{٢}}}{١} \right)$$

$$= \frac{١}{٦} + \frac{٣}{٢}$$

$$\text{(١)} \qquad \text{(٣)}$$

$$= \frac{١}{٦} + \frac{٩}{٦}$$

$$= \frac{\overset{٥}{\cancel{١٠}}}{\underset{٣}{\cancel{٦}}}$$

$$= \frac{٥}{٣} = ١\frac{٢}{٣}$$

ܡܘܦܩܐ ( ٦ ) : ܐܫܟܚ ܠܫܘܪܝܐ :

$$٢\frac{٣}{٥} + ١\frac{١}{٧} \times ١\frac{٥}{١٦} - ٣\frac{٢}{٣} \div ١\frac{٥}{٦}$$

ܦܫܪܐ :

$$\frac{١٣}{٥} + \frac{٨}{٧} \times \frac{٢١}{١٦} - \frac{١١}{٣} \div \frac{١١}{٦}$$

( ܒܡܦܩܬܐ ܕܡܢܝܢܐ ܡܩܕܡܐ ܒܡܢܝܢܐ ܐܚܪܢܐ ܒܐܣܝܡܘܬܐ ܕܫܒܪܐ )

$$= \frac{١٣}{٥} + \left( \frac{\overset{١}{\cancel{٨}}}{\underset{١}{\cancel{٧}}} \times \frac{\overset{٣}{\cancel{٢١}}}{\underset{٢}{\cancel{١٦}}} \right) - \frac{١١}{٣} \div \frac{١١}{٦}$$

$$= \frac{١٣}{٥} + \frac{٣}{٢} - \left( \frac{١١}{٣} \div \frac{١١}{٦} \right)$$

( ܒܵܬܲܪ ܦܘܼܠܵܚܵܐ ܕܦܘܼܠܵܓ̰ܹ̈ܐ ܕܟܘܼܦ̈ܵܠܹܐ )

$$= \frac{١٣}{٥} + \frac{٣}{٢} - \left( \frac{\overset{١}{\cancel{١١}}}{\underset{١}{\cancel{٣}}} \times \frac{\overset{٢}{\cancel{٦}}}{\underset{١}{\cancel{١١}}} \right)$$

( ܡܫܲܠܡܵܐ ܕܦܘܼܠܵܚܘܼܬܵܐ ܠܟܘܼܦ̈ܵܠܹܐ ܕܚܲܒܘܼܫܵܐ ܕܬܪܘܼܬܵܐ )

$$= \frac{١٣}{٥} + \frac{٣}{٢} - \frac{٢}{١}$$

(٢) (٥) (١٠)

( ܡܫܲܟ̰ܫܵܐ ܕܟܘܼܦܵܠܵܐ ܡܢܘܼܬ̈ܵܐ ܘܟܵܦܵܐ ܠܡܢܝܵܢܹ̈ܐ ( ٥ , ٢ , ١ ) )

$$= \frac{٢٦}{١٠} + \frac{١٥}{١٠} - \frac{٢٠}{١٠}$$

$$= \frac{٢٦ + ١٥ - ٢٠}{١٠} = \frac{٢١}{١٠} = ٢\frac{١}{١٠}$$

ܦܘܼܫܵܩܵܐ ( ٧ ) :

ܘܝܼܠܹܗ ܡܢܘܼܦܬܵܐ ٣٢ ܡܝܼܬܪܹ̈ܐ ܡܢ ܦܪܵܬܵܐ ܠܟܘܼܒܵܪܵܐ ܕܩܘܼܡܵܫܹ̈ܐ ، ܐܸܢ ܣܘܼܪܟܵܐ ܕܚܲܕ ܩܘܼܛܥܵܐ ܝܘܼܬ݂ܵܐ $١\frac{٣}{٥}$ ܡܝܼܬܪܹ̈ܐ ، ܡܵܐ ܟܡܵܐ ܡܢܝܵܢܵܐ ܕܩܘܼܛܥܹ̈ܐ ؟

ܫܪܵܐ :

$$٣٢ \div ١\frac{٣}{٥} = ٣٢ \div \frac{٨}{٥}$$

$$= \cancel{24}^{4} \times \frac{5}{\cancel{6}_{1}} = 20$$ ܡܝ̈ܬܪܐ ܕܡܝܐ .

ܡܘܦܬܐ ( ٨ ) :

ܟܡܐ ܝܠܗ ܡܝ̈ܢܬܐ ܕܗܘܝܐ ܕܦܠܓܠܗ ܦܠ̈ܓܐ ܐܝܟ ܡܚܠܠܗ $46\frac{3}{4}$ ܕܡܢ̈ܬܐ ،
ܘܐܟܠܗ ܗܘܢܒܗ $4\frac{1}{4}$ ܕܡܢ̈ܬܐ ؟

ܫܪܝܐ :

$$46\frac{3}{4} \div 4\frac{1}{4}$$

$$= \frac{187}{4} \div \frac{17}{4} = \frac{\cancel{187}^{11}}{\cancel{4}_{1}} \times \frac{\cancel{4}^{1}}{\cancel{17}_{1}}$$

= ١١ ܗܘܝܐ ܦܠܓܠܗ ܦܠ̈ܓܐ

* ———————————— *

## ܕܘܪܫܐ ( ٣ - ٣ )

( ١ ) ܐܫܟܚ ܦܠ̈ܛܐ ܕܟܠ ܚܕ ܡܢ ܕܐ̈ܠܐ :

ܐ/ $3\frac{1}{3} + 2\frac{1}{2} \times \frac{1}{3}$ ܒ/ $1\frac{1}{2} \times \frac{1}{4}$

ܓ/ $\frac{1}{3} \times \frac{1}{5} + \frac{1}{5} \div \frac{3}{4}$ ܕ/ $2\frac{1}{4} \times \frac{5}{13} \div 1\frac{7}{26}$

$$\text{٨/}\ \frac{٣}{٤} \div \frac{١}{٨} - \frac{١}{٣} \text{ ،}$$

$$\text{٥/}\ \frac{١}{٤} \div \frac{٥}{٨} - \frac{٢}{٣}\ ٢ \times \frac{٩}{١٦} + \frac{١}{٢}\ ١$$

$$\text{٩/}\ \frac{٣}{٢} + \frac{٤}{٥} - \frac{١}{٢} \times \frac{١}{٥} \qquad \text{١٠/}\ \frac{٣}{٤} + \frac{٥}{٨} \div \frac{٢}{٣}$$

( ٢ ) ܝܠܕܬܐ ܫܡܝܪܡ ܡܗܠܟܐ ܕܦܪܩܐ ܐܘܪܚܐ $\frac{٣}{٤}$ ܡܝܠܐ ، ܒܨܦܪܐ ܡܗܠܟܐ ܘܠܗܘܪ ܐܘܪܚܐ ܕܟܠܝܢܐ $\frac{١}{٨}$ ܡܝܠܐ ، ܟܡܐ ܡܗܠܟܐ ܘܠܗܘܪ ܒܨܦܪܐ ܡܢܘ ؟

( ٣ ) ܣܟܝܢܐ ܕܒܝܬ ܝܘܠܦܢܐ $\frac{٣}{٨}$ ܐܡ ، ܟܡܐ ܐܝܬܝ ܣܟܝܢ ܟܪܟܐ ܕܡܫܚܬ $\frac{١}{٢}$ ٤ ܐܡ ؟

( ٤ ) ܗܘܝܠܗ ܦܪܘܣܐ ܒܡܫܘܚܬܐ $\frac{٤}{٥}$ ٣٧ ܕܝܘܡܐ ܠܫܒܥܬܐ ٧ ܒܦܘܪܣܐ ، ܟܡܐ ܝܠܗ ܦܘܫܐ ܕܟܠ ܒܦܘܪܣܐ ؟

( ٥ ) ܘܝܠܕܐ ܦܪܝܣ $\frac{١}{٢}$ ٥ ܟܝܠܐ ܓܪܡܐ ܡܢ ܚܡܫܐ ܘܡܘܦܠܣܠܗ $\frac{١}{٢}$ ܕܐܘܐ ܡܫܘܚܬܐ ܒܬܪܝܨܬܐ ܕܡܚܪܒܬܐ . ܝܢ ܦܠܝܓ ܠܗ ܦܬܘܪܐ ܠܬܪܝ ܡܫܘܚܬܐ ܫܘܝܐ ، ܟܡܐ ܡܫܘܚܬܐ ܕܟܠ ܦܠܓܐ ؟

## ٣ . ٤ ܦܠܓ̈ܐ ܥܣܪ̈ܢܝܐ

( ܢܩܫܬܐ ܕܡܫܟܚܢܘܬܐ ܕܟܢܫܐ ܘܒܘܨܪܐ ܘܡܘܦܩܐ ܘܦܠܓܘܬܐ ܥܠ ܡܢܝܢ̈ܐ ܥܣܪ̈ܢܝܐ ) :

ܟܢܫܐ ܘܒܘܨܪܐ ܕܦܠܓ̈ܐ ܥܣܪ̈ܢܝܐ :

ܦܘܫܩܐ ( ١ ) :

ܐܟܢܫ ܗܠܝܢ ٠ , ٣ + ٠ , ٢ =

ܫܪܝܐ : ٠ , ٣ + ٠ , ٢ = ٠ , ٥

٠٫٣ + ٠٫٢ = ٠٫٥

ܦܘܫܩܐ ( ٢ ) :

ܐܟܢܫ ܗܠܝܢ ٠ , ٦٧ − ٠ , ٤٣

ܫܪܝܐ : ٠ , ٦٧ − ٠ , ٤٣ = ٠ , ٢٤

٠٫٦٧ − ٠٫٤٣ = ٠٫٢٤

ܦܘܫܩܐ ( ٣ ) :

ܐܟܢܫ ܗܠܝܢ ٠ , ٤ + ٠ , ١٥

ܫܪܝܐ : ٠ , ٤٠ + ٠ , ١٥ = ٠ , ٥٥

ܣܘܒ ܕ : ٠ , ٤ = ٠ , ٤٠

٠٫٤٠ + ٠٫١٥ = ٠٫٥٥

ܦܘܫܩܐ ( ٤ ) :

ܐܟܢܫ ܗܠܝܢ ٤ , ٠٥ − ٢ , ٩٣

ܫܪܝܐ : ٤ , ٠٥ − ٢ , ٩٣ = ١ , ١٢

٤٫٠٥ − ٢٫٩٣ = ١٫١٢

ܦܘܫܩܐ ( ٥ ) :

ܐܟܢܫ ܗܠܝܢ ٠ , ٦٤٥ + ٠ , ٧

ܫܪܝܐ : ٠ , ٦٤٥ + ٠ , ٧٠٠ = ١ , ٣٤٥

ܣܘܒ ܕ : ٠ , ٧ = ٠ , ٧٠٠

٠٫٦٤٥ + ٠٫٧٠٠ = ١٫٣٤٥

ܦܘܫܩܐ ( ٦ ) :

ܐܟܢܫ ܗܠܝܢ ١ − ٠ , ٤٣٢

ܫܪܝܐ : ١ , ٠٠٠ − ٠ , ٤٣٢ = ٠ , ٥٦٨

## ܕܘܪܫܐ ( ٣ - ٤ )

ܐܥܒܕ ܚܘܫܒܐ ܕܟܠ ܚܕ ܕܠܬܚܬ :

| ١/ | | | |
|---|---|---|---|
| ٠٫٣ | ٠٫٤٧٦ | ٠٫١ | ٣٫٧ |
| ٠٫٤٢ + | ٠٫١٢٣ − | ٠٫٠٠١ + | ١٫٦٥٤ − |

٢/ ٠٫٥٤ + ٠٫٣١٤ =

٣/ ٠٫٣ + ٠٫١٧ =

٤/ ٠٫٠٠٧ + ٠٫٧١ =

٥/ ٠٫٥٣ + ١٫٤ − ٠٫٧٢ =

٦/ ١٫٣ + ٢٫٣٢ =

٧/ ٢ − ٠٫٣٧٥ =

٨/ $٤٫٣٧٥ + \frac{١}{٨} =$

٩/ $٠٫٧٥ + \frac{١}{٤} =$

١٠/ ١٫١ + ٢٫٣ − ٠٫١٦٧ =

١١/ ٣٫٠٤ + ١٫٠٢ − ٠٫٢ =

### ٣ - ٥ ܣܘܓܐܐ ܕܦܣܩܬܐ ܥܣܪܢܝܬܐ :

ܦܘܓܡܐ ( ١ ) :

ܐܥܒܕ ܚܘܫܒܐ ٠٫٣ × ٠٫٨

ܫܪܝܐ :

$$٠٫٣ \times ٠٫٨ = \frac{٣}{١٠} \times \frac{٨}{١٠} = \frac{٢٤}{١٠٠} = ٠٫٢٤$$

ܦܘܓܡܐ ( ٢ ) :

ܐܥܒܕ ܚܘܫܒܐ ٠٫١٣ × ٠٫١٢

ܫܪܝܐ :

$$٠٫١٣ \times ٠٫١٢ = \frac{١٣}{١٠٠} \times \frac{١٢}{١٠٠} = \frac{١٥٦}{١٠٠٠٠} = ٠٫٠١٥٦$$

ܡܬܠܐ ( ٣ ) :

ܐܫܟܚ ܡܘܢܒܐ 1 , ٢٤ × ١ , ٣

ܫܪܝܐ : ١٫٢٤ X ١٫٣ = $\frac{١٢٤}{١٠٠}$ X $\frac{١٣}{١٠}$ = $\frac{١٦١٢}{١٠٠٠}$ = ١٫٦١٢

ܣܘܪܐ ܗܘܝܘ ܕ :

٠٫٣ X ٠٫٨ = ٠٫٢٤

٠٫١٣ X ٠٫١٢ = ٠٫٠١٥٦

ܡܘܬܐ : ١٫٢٤ X ١٫٣ = ١٫٦١٢

ܠܗ ܠܡܦܩ ܕܡܒܕܐ ܠܚܫܒܢܐ ܒܡܢܝܢ ܡܫܬܪܝܬܐ ܕܠܡܦܩ ܐܝܟ ܕܗܘܐ ܕܡܢܝܢܐ ܕܠܡܦܩ ܗܘ ܚܫܒܢܐ ܚܕܢܝܐ ܡܢ ܒܬܪ ܡܢ ܫܩܠܢܐ ܕܦܠܓܐ ܕܠܡܦܩ ܕܡܢܝܢܐ ܒܡܫܘܚܬܐ ܕܚܫܒܢܐ ܕܡܢܝܢܐ ܠܚܫܒܢܐ ܕܡܢܝܢ ܠܡܢܝܢܐ ܡܣܬܪܐ .

ܕܘܪܫܐ ( ٣ - ٥ )

ܐܫܟܚ ܦܠܛܐ ܕܟܠ ܚܕ ܡܢ ܗܐ ܕܠܬܐ :

١- ٣٫٤ X ١٫٥ =

٢- ١٫٣٤٥ X ٢٫٠٧ =

٣- ٢٫٠٥ X ٢٫٣ X ١٫٤ =

٤- ١٫٣ X ٤٫٥ + ٧٫٣ X ١٫٥ =

٥- ٢٫٠٠٤ X ٥٫٠١٧ =

٦- ٣٣٫٢ X ٠٫٠٠٣ =

٧- ٤٫٠٥ X ٢٫٧ =

٨- ١٫٣٢ X ١٫٠٤ =

## ٣ . ٦ ܦܠܓܘܬܐ ܕܡܢܝܢܐ ܥܣܪܢܝܐ ܘܡܢܝܢܐ ܥܣܪܢܝܐ

ܡܬܠܐ ( ١ ) :

ܐܫܟܚ ١٢ , ٠ ÷ ٣

ܫܪܝܐ : ١٢ , ٠ ÷ ٣

١٢ ܡܢܘܬܐ ܡܢ ܡܐܐ ÷ ٣ = ٤ ܡܢܘܬܐ ܡܢ ܡܐܐ

ܗ . ܕ ١٢ , ٠ ÷ ٣ = ٠٤ , ٠

ܡܬܠܐ ( ٢ ) :

ܐܫܟܚ ܦܘܠܓܐ ٨ , ٦٢٨ ÷ ١٢

ܫܪܝܐ : ٨ , ٦٢٨ ÷ ١٢ = ٤ , ٥٢

٥٢٫٤
١٢ ) ٦٢٨٫٨
٦٠ -
٢٨
٢٤ -
٤٨
٤٨ -
٠٠

ܡܬܠܐ ( ٣ ) :

ܐܫܟܚ ܦܘܠܓܐ ٢ , ٣ ÷ ٤ , ٠

ܫܪܝܐ : ٣٫٢ ÷ ٠٫٤ = $\frac{٣٫٢}{٠٫٤}$

$$= \frac{٣٫٢ \times ١٠}{٠٫٤ \times ١٠} = \frac{٣٢}{٤} = ٨$$

ܡܬܠܐ ( ٤ ) :

ܐܫܟܚ ܦܘܠܓܐ ٥٩ , ٤ ÷ ٩ , ٠

ܫܪܝܐ : ٤٫٥٩ ÷ ٠٫٩ = $\frac{٤٫٥٩}{٠٫٩} = \frac{٤٫٥٩ \times ١٠}{٠٫٩ \times ١٠} = \frac{٤٥٫٩}{٩}$

٤٥٫٩ ÷ ٩ = ٥٫١

٥٫١
٩ ) ٤٥٫٩
٤٥
٠٩
٩
٠٠٠

ܡܬܠܐ ( ٥ ) :

ܦܠܘܓ ١٢٥ , ٨ ܥܠ ٢٥ , ٣

$$\frac{٨٫١٢٥}{٣٫٢٥} = \frac{٨٫١٢٥ \times \square}{٣٫٢٥ \times \square} = \frac{.........}{٣٢٥}$$

( ܟܡܐ ܡܢܝܢܐ ܢܟܒܫ ܠܘܩܦܐ ܕܦܠܓܢ ܐܢܘ ܕܦܝܫ ܡܢܝܢܐ ܥܣܪܢܝܐ ؟ )

ܐܢ ܡܣܓܝܚ ܦܠܝܓ ܥܠܗ ܒ ١٠٠ ܡܚܕܝܣ ܡܦܩܐ ܦܠܝܓܐ ܒ ١٠٠ ܐܦ ܗܘ
ܘܦܠܓܐ ܡܫܘܕܥܬܐ :

$$٨٫١٢٥ \div ٣٫٢٥ = \frac{٨١٢٫٥}{٣٢٥}$$

$$٨٫١٢٥ \div ٣٫٢٥ = ٨١٢٫٥ \div ٣٢٥ = ٢٫٥$$

```
      ٠٠٢٫٥
٣٢٥ | ٨١٢٫٥
      ٦٥٠
      ١٦٢٥
      ١٦٢٥
        ٠٠
```

ܡܘܬܠܐ ( ٦ ) : ܦܠܘܓ ١٢ ܥܠ ٠٫٥ .

$$١٢ \div ٠٫٥ = \frac{١٢ \times ١٠}{٠٫٥ \times ١٠} = \frac{١٢٠}{٥}$$

$$١٢٠ \div ٥ = ٢٤$$

```
    ٠٢٤
٥ | ١٢٠
    ١٠
    ٠٢٠
     ٢٠
     ٠٠
```

ܡܠܘܐ :

| ܠܦܠܓܬܐ ܕܡܢܝܢܐ ܕܣܕܪܐ ܥܠ ܡܢܝܢܐ ܕܣܕܪܐ ܗܠܐ ܕܚܕܘܬ ܦܠܝܓ ܥܠܗ ܡܢܝܢܐ ܫܠܡܐ . ܘܗܝ ܒܫܘܚܠܦܐ ܕܦܣܘܩܐ ܡܢ ܦܠܝܓ ܥܠܗ ܘܡܫܢܝܬܐ ܕܦܣܘܩܐ ܕܣܕܪܐ ܡܢ ܦܠܝܓܐ ܐܦ ܒܡܢܝܢܐ ܡܢܝܢܐ ܡܢ ܕܘܟܬܐ ܕܣܕܪܐ ܐܟܘܬ ܠܡܢܝܢܐ ܕܣܕܪܐ ܒܦܠܝܓ ܥܠܗ . |
| --- |

## ܕܘܪܫܐ ( ٣ ـ ٦ )

( ١ ) ܒܥܒܕ ܦܠܝܓ ܥܠܗ ܟܠ ܚܕ ܡܢ ܕܗܠܝܢ ܡܢܝܢܐ ܫܠܡܐ ܘܡܢ ܦܠܘܓ ܕܠܬܚܬ :

ܐ / ١٫٨ ÷ ٠٫٦ =    ܒ / ١٫٢ ÷ ٠٫٠٣ =

ܓ / ٠٫٢١ ÷ ٠٫٠٧ =    ܕ / ٠٫٤٢ ÷ ٠٫٧ =

ܗ / ٦٫٥ ÷ ٠٫٨ =    ܘ / ٦٣ ÷ ٠٫٩ =

ܙ / ٠٫٦٣ ÷ ٠٫٩ =

( ٢ ) ܐܚܫܒ ܦܠܓܐ ܕܦܠܓܘܬܐ ܠܟܠ ܚܕ ܡܢ ܗܠܝܢ :

ܐ / ١٥٫٨٤ ÷ ٢٫٢ =    ܒ / ٠٫٤٨١ ÷ ٣٫٧ =

ܓ / ١٦٫٣٢٨ ÷ ٣٫١٤ =    ܕ / ٠٫١٥٦ ÷ ٠٫١٢ =

ܗ / ١٤٫٥ ÷ ٠٫٥٨ =    ܘ / ١٠٫٠٤٨ ÷ ٣٫١٤ =

(٣) ܝܘܪܬܐ ܦܫܝܛܬܐ ܕܡܫܘܚܬܐ ܡܝܬܪܐ ٤٠ ، ٠ ܕܦܬܝܐ ، ܡܢ ܐܘܪܟܗ ܦܫܝܛܬܐ
ܕ ٧٥ ، ٠ ܡܫܘܚܬܐ ܡܝܬܪܐ ؟

(٤) ܘܟܡܐ ܣܢܝܩܐ ܡܢ ܡܫܘܚܬܐ ٥٤ ܡܫܘܚܬܐ ܡܢ ܦܘܡܐ ܠܡܡܠܝܘܬܐ ٣٦
ܗܘܦܟܬܐ ܕܡܫܘܚܬܐ ܕܟܠܗ ܟܡܐ ܡܫܘܚܬܐ ܡܫܟܚܢܢ ܠܟܠ ܗܘܦܟܐ ؟

(٥) ܦܠܓܘܗ ܢܓܪܐ ܠܦܢܐ ܡܢ ܡܫܚܐ ܢܘܪܕܘ ٥ ، ١ ܡܫܘܚܬܐ ܠܡܦܠܓܐ ܒܝܬ
ܕܢܘܪܕܐ ܘܢܘܪܕܐ ܕܡܢ ܡܫܘܚܬܐ ܢܗܘܐ ٩ ، ٠ ܡ . ܐܡܬܝ ܡܫܬܐ
ܕܡܦܠܓܐ .

(٦) ܐܝܬ ܠܢ ܢܘܪܐ ٥ ܕܦܬܝܐ ، ܘܟܡܐ ٥ ، ٥ ܡܫܘܚܬܐ ܡܢ ܦܘܡܐ ܕܦܫܝܛܬܐ
٣٧٠ ، ٠ ܕܦܬܝܐ ܠܡܫܘܚܬܐ ، ܟܡܐ ܦܠܓܘܬܗ ܢܗܘܐ ؟

(٧) ܐܘܪܚܐ ܢܘܪܕܗ ٦٥ ، ٨ ܡ . ܟܡܐ ܟܦܐܐ ܢܗܘܘܢ ܕܦܠܓܘܬܗ ܡܢܗ
ܕܡܫܚܐ ܠܡܫܘܚܬܐ ܠܗ ١ ܢܗܘܐ ܡܐ ܡܫܘܚܬܐ ܕܦܠܓܬܐ ܕܟܠܗ ܕܐܘܪܚܐ
ܠܗ ( ٥ ) ܢܗܘܐ ؟

(٨) ܡܢܐ ܐܝܬܝܗ $\frac{٣}{٤}$ ٦ ܕܟܠܗ ܩܕܡܐ ܡܢ ܣܠܩܐ . ܟܡܐ ܡܢܐ ܕܡܫܘܚ
ܠܡܫܘܚܬܗ ܐ ، ܟܠ ܚܕ ܡܢܗ ܢܗܘܐ $\frac{١}{٨}$ ١ ܕܟܠܗ ܩܕܡܐ ؟

## ٣ . ٧ ܡܩܪܒܬܐ ܕܡܢܝܢܐ ܥܣܪܢܝܐ

ܐܢ ܕܪܫܝܢܢ ܦܪܨܘܦܐ ܗܠܝܢ ܒܗܕܐ ܨܘܪܬܐ ܕܡܢܝܢܐ ܦܣܩܢܝܐ ܟܕ ܒܗܕܐ
ܟܗܘܐ = $\frac{٤}{٣}$ ܕܡܢܝܢܐ
$\frac{٤}{٣}$ = ١,٣٣٣٣٣ ܕܡܢܝܢܐ

ܚܙܝܐ ܗܘܐ ܕܡܢܝܢܐ ٣ ܗܘܐ ܟܠܗ ܗܘ ܐܘܣܦܐ ܠܥܣܪܢܝܘܬܐ ܒܥܒܕܐ ܠܡܢܝܢܐ ܠܐ ܦܣܩܐ ܡܢ ܕܘܟܐ ܥܣܪܢܝܐ . ܘܟܕ ܐܝܬ ܕܥܣܪܢܝܘܬܐ ܡܫܚܬ ܚܫܒܐ ܕܗܕܐ ܟܡܝܘܬܐ ܘܡܢܘܬܐ ܗܝ ܦܠܓܐ . ܘܐܢ ܐܝܬ ܕܡܫܪܟܐ ܠܗܘܐ ܕܡܫܪܐ ܥܠܝܗܘܢ ܒܗܝ ܡܫܚܬܐ ܦܠܓܐ ܘܢܗܘܐ ܡܫܚܬܗ ܡܢܘܬܐ ܕܦܠܓܐ .

ܒܗܕܐ ܦܠܓܐ ܕܥܣܪܢܝܘܬܐ ܗܘܐ ٣٣٣ ܡܫܕܪܐ ܘܡܫܬܟܚ ٣ ܠܗ ܕܗܘܐ ܒܡܩܪܒܬܐ ܕܥܠܝܐ ܘܒܗܕܐ ܘܡܫܚܬ ܚܫܒܐ ܕܗܕܐ = ܡܢ ܡܢܝܢܐ ٣٣٣ ܦܠܓܐ ܡܫܕܪܐ . ܘܠܥܣܪܢܝܘܬܐ ܕܦܠܓܐ ܡܩܪܒ ܐܝܟ ܩܪܝܒܐ ܠܡܩܪܒܬܐ ܒܗܕܐ ܕܦܠܓܐ ܘܗܘܐ ܚܫܒܐ ܕܗܕܐ ٣٣٠,١ ܦܠܓܐ ܡܩܪܒܬܐ .

ܡܬܠܐ ( ١ ) :

ܘܙܒܢܘ ܬܠܡܝܕܐ ܡܢܬܐ ܕܦܢܩܐ ܕܡܢܝܢܗ ٢٧٥ ܦܣ ܒܕܡܝܐ ٤٢٥ ܦܠܓܐ ܠܟܠ ܡܢܬܐ . ܡܢ ܟܡܐ ܚܫܒܐ ܕܦܢܩܐ ܠܗ ؟

ܫܪܝܐ :

٢٧٥ ܦܣ = ٢٧٥ ÷ ١٠٠ = ٢,٧٥ ܡܢܬܐ

٢,٧٥ × ٤٢٥ = ١١٦٨,٧٥ ܦܠܓܐ

ܘܐܝܟ ܠܗ ܟܠܗ ܡܢܝܢܐ ܦܠܓܐ ܕܦܠܓܐ ܥܠ ܕܗܘܐ ܐܝܟ ܕܡܩܪܒ ܚܫܒܐ ܠܡܩܪܒܬܐ ܦܠܓܐ

١١٦٨,٧٥ ܗܘܐ ܡܩܪܒܬܐ ١١٦٩ ܦܠܓܐ .

ܘܠܘܬܢܝܬ :

> ܠܡܣܪܟܬܐ ܕܟܠ ܡܢܝܢܐ ܠܕܘܟܬܐ ܡܣܝܡܬܐ ܐܢܚܘܫ ܠܪܡܫܐ ܒܕܘܟܬܐ ܕܒܬܪ ܡܢܗ ، ܘܐܢ ܗܘܐ ( ٥ ) ܐܘ ܝܬܝܪ ܡܢ ( ٥ ) ܢܣܝܦ ܚܕ ܕܘܟܬܐ ܡܘܒܠܢܐ ܕܒܬܪ ܡܢܗ ܘܢܦܩܘܢ ܒܢܘܦܐ ܣܦܝܪܐ ، ܘܢܘܣܦܘܢ ( ١ ) ܠܚܕ ܕܘܟܬܐ . ܘܐܢ ܗܘܐ ܒܨܝܪ ܡܢ ( ٥ ) ܢܫܒܘܩ ܪܡܫܐ ܕܚܕ ܕܘܟܬܐ ܡܘܒܠܢܐ ܕܒܬܪ ܡܢܗ ܘܢܦܩܘܢ ܣܦܝܪܐ ܒܢܘܦܗ .

ܡܬܠܐ ( ٢ ) :

ܐܫܟܚ ܡܘܢܚܐ

١٥ , ٣٢ ÷ ٩ ܡܩܘܪܒܐ ܦܠܓܐ

ܠܡܩܪܒܘܬ ܡܢܬܐ ܡܢ ܐܠܦܐ

ܣܓܝ ܗܘܐ ܕܢܚܫܘܒ ܦܠܝܓܘܬܐ ܠܕܘܟܬܐ

ܬܠܝܬܝܬܐ ܕܒܬܪܝܬܐ ܠܣܕܪܐ ܕܪܡܫܐ ܡܕܡܝܐ

ܕܬܠܬܐ ܥܣܩܐ ܗܘ ܡܩܪܒܬܐ .

١٥ , ٣٢ ÷ ٩ = ٣ , ٥٧٢ ܡܩܪܒܐܝܬ

```
 ٠٣,٥٧٢٢
٩ | ٣٢,١٥
   ٢٧ -
   ٠٥١
   ٤٥ -
   ٠٦٥
   ٦٣ -
   ٠٢٠
   ١٨ -
   ٠٢
```

ܡܬܠܐ ( ٣ )

ܐܫܟܚ ܡܘܢܚܐ ٦٣ ÷ ٨ ܡܩܘܪܒܐ ܦܠܓܐ

ܠܬܪܝ ܕܘܟܝܢ ܬܠܝܬܝܢ .

ܫܪܝܐ :

٦٣ ÷ ٨ = ٧,٨٧٥

= ٧,٨٨ ܡܩܪܒܐܝܬ

```
 ٠٧,٨٧٥
٨ | ٦٣
   ٥٦ -
   ٠٧٠
   ٦٤ -
   ٠٦٠
   ٥٦ -
   ٠٤٠
   ٤٠ -
   ٠٠
```

* ________________________ *

## ܕܘܪܫܐ ( ٣ - ٧ )

( ١ ) ܩܪܘܒ ܠܚܕܐ ܕܘܟܬܐ ܥܣܪܢܝܬܐ

ܐ ) ٦٥,٤٥١      ܒ ) ٣,٠٥٧١

ܓ ) ٧٧,٧٧٧      ܕ ) ١٤,٠٣٢

( ٢ ) ܩܪܘܒ ܠܡܘܪܟܒܐ ܥܣܪܐ

ܐ ) ٨٦٧      ܒ ) ٣٤١٣

ܓ ) ٥١١٤      ܕ ) ١٤٦٧

( ٣ ) ܫܟܘܚ ܦܠܛܐ ܕܦܠܓܘܬܐ ܡܩܪܒܐ ܠܬܪܬܝܢ ܕܘܟܝܢ ܥܣܪܢܝܢ :

ܐ ) ٩٣ ÷ ٧ =      ܒ ) ٣٢,٦٧ ÷ ١٣ =

ܓ ) ١٩٣٦ ÷ ٤٣ =      ܕ ) ٦٧,٥ ÷ ١٣,٧ =

( ٤ ) ܐܫܟܚ ܛܘܠܐ ٥ , ٦٦ ܡܝܬܪܐ ܡܢ ܦܬܝܐ ܛܘܠܐ ܕܡܝܬܪܐ ܡܢܐ ٨٧٠
ܦܠܛܗ ܡܩܪܒܐ ܦܠܛܐ ܠܡܘܪܟܒܐ ܕܥܣܪܐ ؟

( ٥ ) ܙܒܢܗ ܢܘܚܡ ٧ ܦܘܪܬܐ ܒܛܘܠܐ ٢٠٠ ܕܝܢܪܐ ، ܡܐ ܛܘܠܐ ܕܚܕܐ
ܦܘܪܬܐ ܡܘܪܟܒܐ ؟

( ٦ ) ܛܠܝܬܐ ܝܠܗ ܦܠܛܐ ܕܡܚܫܘܒܬܐ ٤٢٧ ܕܝܢܪܐ ܠܬܪܬܝܢ
ܐܚܘܬܐ ܒܡܫܘܚܬܐ . ܡܐ ܝܠܗ ܦܘܪܫܐ ܕܟܠ ܚܕ ؟ ܡܢ ܩܪܘܒ
ܠܡܘܪܟܒܐ ܕܥܣܪܐ .

( ٧ ) ܩܪܘܒ ܠܦܠܓܐ ܕܐܠܝܗ ܒܨܘܪܬܐ ܥܣܪܢܝܬܐ ܡܩܪܒܐ ܠܡܘܪܟܒܐ
ܡܢܬܐ ܡܢ ܥܣܪܐ .

ܐ ) $\frac{١}{٤}$      ܒ ) $\frac{٢}{٣}$      ܓ ) $\frac{٣}{٧}$      ܕ ) $\frac{١١}{١٨}$

( ٨ ) ܩܪܘܒ ܠܦܠܓܐ ܕܐܠܝܗ ܒܨܘܪܬܐ ܥܣܪܢܝܬܐ ܡܩܪܒܐ ܠܡܘܪܟܒܐ
ܡܢܬܐ ܡܢ ܡܐܐ .

ܐ ) $\frac{٥}{٧}$      ܒ ) $\frac{٤}{١١}$      ܓ ) $\frac{٣٥}{٤٩}$      ܕ ) $\frac{١٧}{٥٣}$

## ܦܣܘܩܐ ܕܐܝܠܢܐ

### ܡܫܪܘܬܐ

# ܦܫܘܛܐ ܕܡܫܚܐ

## ܡܢܝܢܐ...

### ܓ. ܣܘܟܡܐ ܡܫܚܝܐ

ܕܘܟܬܐ :

ܕܐܢܬܘܢ ܡܫܚܬܐ ܡܫܚܬܐ ܡܕܡܐ ܐܝܟ ܡܫܚܐ ܡܢ ܠܡܫܚܬܐ ܕܡܫܚܐ

ܡܫܚܬܐ ܒ ܐ̂ ܓ

ܒܕ ܐ ܒ || ܐ ܓ = ܒ ܐ̂ ܓ

ܘܩܝܡ ܠܒܝܫ ܒܙܘܝܬܐ ܐ̂

ܒܡܫܚܬܐ ܕܐܢܐ ܕܘܟܬܐ.

ܙܘܝܬܐ ܕܠܘܡܬܐ ܡܫܚܬܐ ܒ ܐ̂ ܓ . ܓ ܐ ܒ




ܚܘܝ ܡܐ ܕܐܬܐ :

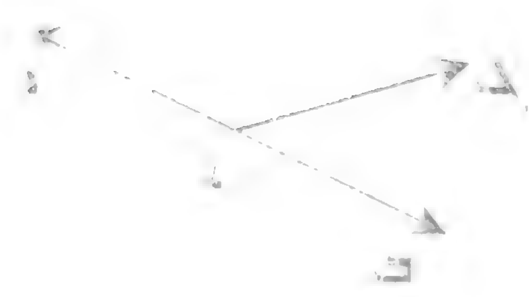
ܐܠܦܐ ܒ ܐ̂ ܓ ܗܘܐ .........

ܘܐܠܦܐ ܓ ܐ̂ ܕ ܗܘܐ .........

ܚܘܝ ܕܐܝܟ ܐܠܦܐ ܡܫܘܚܬܐ ܘܠܗ

......... ܗܘܐ ܐܠܦܐ ܐܚܪܬܐ ܡܫܚܬܐ

......... ܘܗܘܐ ܠܗܘܢ ܦܪܝܫܐ ܒ




ܐܠܦܐ ܡܫܘܚܬܐ ܠܙܘܝܬܐ ܦܫܝܛܐ ܡܕܡܐ ܘܗܘܐ

ܒ ܐ̂ ܓ ، ܓ ܐ̂ ܕ ( ܘܗܘܐ ܦܫܝܛܐ )

ܚܘܝ ܠܡܫܚܬܐ ܦܫܝܛܬܐ ܠܗܘܢ

ܗ ܝ ، ܗ ܓ ، ܗ ܒ ܕܥܠܘܗ

ܗ ܝ ، ܗ ܒ ܘܦܫܝܛ

ܡܫܘܚܬܐ ܝ ܗ̂ ܓ .



ܒܗܕ ܐܗܐ ܡܫܘܚܬܐ ܠ ܗ̂ܒ = .......... ٥٠°

= .......... ܚܠܠܬܐ ..........

ܘܒܪܬܗܬܐ ܠܐܣܛܪ̈ܐ ܢܦܝ̈ܩܬܐ ܡܢ

ܕ ܐ ، ܡ ܒ ، ܡ ܓ ܡܚܘܒ ܠܘܢܬܐ

ܢܦܝ̈ܩܬܐ ܕܝܠܗ̇ .......... ، .......... ، ..........

ܐܝ ܒܗܘܕ ܡܫܘܚܬܐ ܐ ܡ̂ ܒ = ٤٠° ،

ܡܫܘܚܬܐ ܓ ܡ̂ ܕ = ٦٠°

ܡܫܘܚܬܐ ܒ ܡ̂ ܓ = .......... − ( ...... + ...... ) = ..........

ܘܐܠܗ̈ܐ ܗܘ̈ܦܝܐ ܠܐ̈ܢܫ ܙܘܢܬܐ ܢܦܝ̈ܩܬܐ ܝܠܗ̇ .......... ، ..........

ܘܚܙܝ ܠܐܣܛܪ̈ܐ ܢܦܝ̈ܩܬܐ ܘܡܫܚܠ

ܐ ܒ ، ܓ ܕ ܡܬܟܠܠܗܘܢ ܒܢܘܩܙܬܐ ܗ ،

ܦܠܛ ܡܢ ܕܐܗܐ ܐ̈ܪܒܥܐ ܙܘܢܬܐ ܢܦܝ̈ܩܬܐ ܕܝܠܗ̇ :

.......... ، .......... ، .......... ، ..........

ܡܢ ܐ ܗ̂ ܓ ، ܕ ܗ̂ ܒ ܙܘܢܬܐ ܡܩܘܒܠܢܝܬܐ ܒܪܝ̈ܫܐ ܘܗܕܐ ܗ̇ܕܝ ...... ، ..... ...

ܡܩܘܒܠܢܝܬܐ ܒܪ̈ܝܫܐ ، ܕܒܗܕ ܕܙܘܢܬܐ ܡܩܘܒܠܢܝܬܐ ܒܪ̈ܝܫܐ ܘܕܦܠܛܐ ܝܠܗ̇

ܕܡܫܘܚܬܐ ܕܗܕܝ ܗܕܝܐ ܚܕܐ ܝܠܗ̇ ܒܡܫܘܚܬܐ ( ܟܡܝܐ ) ܘܡܚܘܙܐ ܝܠܗ

ܐܣܛܪ̈ܐ ܢܦܝ̈ܩܬܐ ܠܗܕܐ .

ܕܝܗܘ ܐ ܒ ، ܓ ܕ ܡܬܟܠܠܝ ܠܗ

ܢܘܩܙܬܐ ܘ ܐܝ ܒܗܘܕ ܡܫܘܚܬܐ ܒ ܘ̂ ܕ = ٦٠°

ܕܠܐ ܡܦܠܚܬܐ ܕܢܦܠܛܬܐ ܡܢ ܚܕܐܝܢ :

ܡܫܘܚܬܐ ܐ ܗ̂ ܓ = .........

ܥܠܠܬܐ .........

ܡܫܘܚܬܐ ܓ ܗ̂ ܒ = .........

ܥܠܠܬܐ .........

ܡܫܘܚܬܐ ܐ ܗ̂ ܕ = .........

ܥܠܠܬܐ .........

ܙܘܝܬܐ ܦܠܝܓܐ ܡܢ ܡܫܠܠܬܐ ܕܗܕܐ ܗܕܝܐ
ܒܗܕܝܐ ܗܠܝܢܬܐ ܐ ܒ ، ܓ ܕ
ܦܡ ܡܫܝܠܠܝܢ ܚ ܘ ، ܠܗ ܢܘܩܙܬܐ
ܗ ، ܙ ܐܝܟ ܒܐܗܡܝܬܐ ܢܩܝܦܬܐ .
ܡܛܠ ܕܙܘܝܬܐ ܢܩܝܦܬܐ ܦܠܝܓܐ ܡܢ
ܡܫܠܠܬܐ ܐ ܒ ، ܚ ܘ ، ܠܗ ܗ ܒܠܗ ......... ܙܘܝܬܐ .

ܙܘܝܬܐ ، ܡܛܠ ܕܙܘܝܬܐ ܦܠܝܓܐ ܡܢ
ܡܫܠܠܬܐ ܓ ܕ ، ܚ ܘ ، ܠܗ ܙ ܒܠܗ ...... ܙܘܝܬܐ .
ܗܟܢ ܐܝܟ ܠܗ ܚܘܦܬܐ :

ܡܫܘܚܬܐ ܐ ܗ̂ ܚ = ܡܫܘܚܬܐ ܒ ܗ̂ . ܥܠܠܬܐ ( ܡܩܒܠܢܐ ܒܕܪܐ )

ܡܫܘܚܬܐ ܓ ܙ̂ ܘ = ܡܫܘܚܬܐ ...^... ܥܠܠܬܐ

ܡܫܘܚܬܐ ܚ ܗ̂ ܒ = ܡܫܘܚܬܐ ...^... ܥܠܠܬܐ

ܡܫܘܚܬܐ ܕ ܙ̂ ܘ = ܡܫܘܚܬܐ ...^... ܥܠܠܬܐ

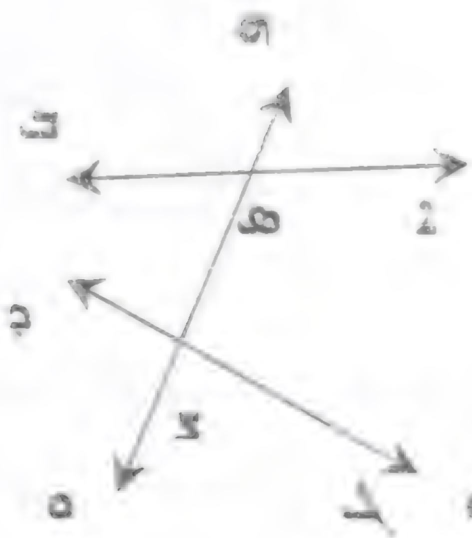
ܡܫܘܚܬܐ ܐ ܗ̂ ܚ + ܡܫܘܚܬܐ ܚ ܗ̂ ܒ = ܐ ܗ̂ ܒ ܥܠܠܬܐ ( ܙܘܝܬܐ ܢܩܝܦܐ )

ܡܫܘܚܬܐ ܗ ܙ̂ ܕ + ܡܫܘܚܬܐ ܕ ܙ̂ ܘ = ...^... ܥܠܠܬܐ

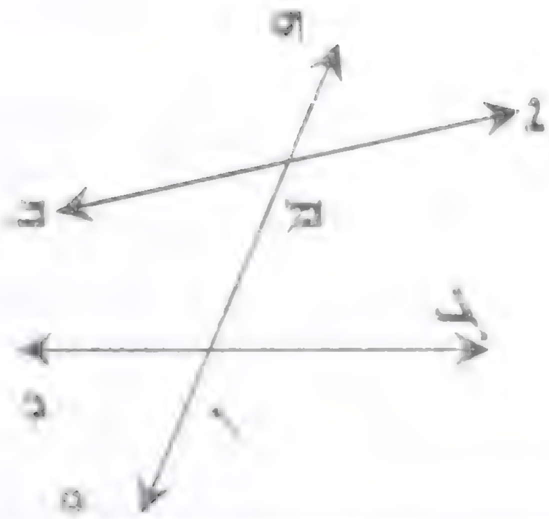
ܡܫܘܚܬܐ ܗ ܙ̂ ܓ + ܡܫܘܚܬܐ ، ܙ̂ ܓ = ١٨٠° ܥܠܠܬܐ ( ܡܫܘܚܬܐ ܕܙܘܝܬܐ
ܗܕܝܬܐ = ١٨٠° )

ܡܫܘܚܬܐ ܐ ܗ̂ ܙ + ܡܫܘܚܬܐ ...^... = ١٨٠° ܥܠܠܬܐ

## ٤ . ٢ ܙܘܝܬ̈ܐ ܕܡܫܚܠܦܬ̈ܐ




ܐܒ ، ܓܕ ، ܗܢܢ ܡܬܦܣܩܝܢ ܗܘ ܒܝܕ
ܚܙ ، ܐܝܟ ܕܒܐܣܟܡܐ ܨܘܪܬܐ . ܣܘܡ
ܐܫܬܘܝܬܐ ܐ ܚ̂ ܗ ܠܩܘܒܠ ܒܝܢܝܬܐ:
ܕܙܘܝܬܐ ܦܠܝܓܐ ܡܢ ܡܫܬܘܬܐ ܐ ܒ ،
ܗܘ ܡܢ ܣܘܦ ܐܫܬܘܝܬܐ ܓ ܙ̂ ܚ ܠܩܘܒܠ
ܒܝܢܝܬܐ ܕܙܘܝܬܐ ܦܠܝܓܐ ܡܢ ܡܫܬܘܬܐ ܓܕ ، ܗܘ
ܐ ܚ̂ ܗ ، ܓ ܙ̂ ܚ ܦܫܝܢ ܡܢܐ ܙܘܝܬܐ ܕܡܫܚܠܦܬܐ
ܗܢ ܗܕܡܐ :
ܗ ܚ̂ ܒ ، ܚ ܙ̂ ܕ ܙܘܝܬ̈ܐ ܕܡܫܚܠܦܬ̈ܐ
ܐ ܚ̂ ܙ ، ܓ ܙ̂ ܘ ܙܘܝܬ̈ܐ ܕܡܫܚܠܦܬ̈ܐ
ܒ ܚ̂ ܙ ، ܕ ܙ̂ ܘ ܙܘܝܬ̈ܐ ܕܡܫܚܠܦܬ̈ܐ




ܘܐܝܟ ܠܐܣܟܡܐ ܨܘܪܬܐ ܐܢ ܐܒ ، ܓܕ
ܗܢܢ ܡܫܬܘܬܦܝܢ ܗܘ ܒܝܕ ܛ ، ܝ، ܡܠܝ
ܠܛܒܠܝܬܐ ܘܚܘܝ ܒܡܘܕܥܢܐ ܕܐܟܐ :

| ܙܘܝܬܐ | ܡܫܘܚܬܗ̇ | ܙܘܝܬܐ ܕܡܫܚܠܦܬܐ ܠܗ̇ | ܡܫܘܚܬܗ̇ |
|---|---|---|---|
| ܗ ܛ̂ ܒ | | | |
| ܐ ܛ̂ ܗ | | | |
| ܐ ܛ̂ ܝ | | | |
| ܒ ܛ̂ ܝ | | | |

ܣܪ̈ܛܐ ܦܫܝ̈ܛܐ ܗܢܘܢ ܠܘ ، ܗܕ : ܡܡ
ܡܦܣܩܢܝܬܗܘܢ ܡ ، ܗܘ ܐ ، ܒ
ܐܫܡ ܠܙܘ̈ܓܐ :

| ܙܘܝܬܐ ܕܡܫܚܠܦܐ ܠܗ | ܙܘܝܬܐ |
| --- | --- |
| ܐܒ̂ܗ | ܠܐ̂ ، |
| | ܡܐ̂ܘ |
| | ܠܐ̂ܒ |
| | ܘܐ̂ܒ |

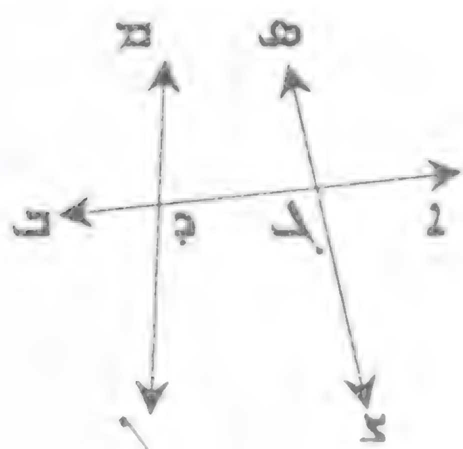
## ٤ . ٣ ܙܘܝ̈ܬܐ ܡܫܚܠܦ̈ܢ

ܐܒ ، ܠܕ ܡܢ ܡܦܣܩܢܝܬܗ ܗܘ
ܗܘ ، ܦܐܣ ܒܣܪ̈ܛܐ ܦܫܝ̈ܛܐ .
ܐܗ̂ܦ ، ܒܗ̂ܦ ، ܗܦ̂ܠ ، ܗܦ̂ܕ ،
ܩܪ̈ܝܢ ܙܘܝ̈ܬܐ ܓܘ̈ܝܬܐ .
ܘܐܦ ܠܙܘܓܐ ܐܗ̂ܦ ، ܠܦ̂ܗ ܙܘܝ̈ܬܐ
ܓܘ̈ܝܬܐ ܘܠܚܕ ܓܒܐ ܡܢ ܡܦܣܩܢܝܬܐ ܗܘ .
ܗܟ ܗܘ ܒܗ̂ܦ ، ܕܦ̂ܗ ܙܘܝ̈ܬܐ ܓܘ̈ܝܬܐ ܘܟܠ ܚܕ ܓܒܐ ܡܢ ܡܦܣܩܢܝܬܐ ܗܘ
ܘܐܦ ܙܘܝ̈ܬܐ ܐܗ̂ܦ ، ܕܦ̂ܗ ܓܘ̈ܝܬܐ ܘܠܐ ܢܩܦ̈ܢ ܘܒܓܒ̈ܐ ܦܠܝܓ̈ܐ ܡܢ
ܡܦܣܩܢܝܬܐ

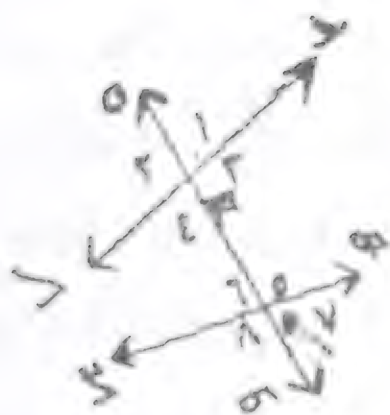
ܒܘܕ ܐܗܐ ܒܡܪܝܢ ܐ ܛ̂ ܝ ، ܕ ܝ̂ ܛ ܙܘܝܬܐ ܡܚܠܦܢܝܬܐ ܗ̄ܝ ܗܘܝ؟
ܒ ܛ̂ ܝ ، ܓ ܝ̂ ܛ ܙܘܝܬܐ ܡܚܠܦܢܝܬܐ .

ܒܐܗܡܝܬܐ ܢܘܒܐ ܓ ܕ ، ܗ ܘ
ܘܗܡ ܡܩܛܥܝܢܝܗ̄ ܐ ܒ ܥܠ ܚ ، ܙ
ܚܘܝ ܠܗܘܪܬܐ ܕܐܬܐ ܥܡ ܡܦܠܚܬܐ
ܕܢܩܠܝܬܐ ܠܒܢܠܬܐ ܕܡܟܘܣܬܐ .

| ܡܟܘܣܬܗ | ܙܘܝܬܐ ܡܚܠܦܢܝܬܐ ܗ̄ܝ ܠܗ | ܡܟܘܣܬܗ | ܙܘܝܬܐ |
|---|---|---|---|
| | | | ܓ ܚ̂ ܙ<br>ܕ ܚ̂ ܙ |




ܒܐܗܡܝܬܐ ܢܘܒܐ
ܛ ܝ ، ܚ ܙ ܗܡ ܡܩܛܥܝܢܝܗ̄ ܐ ܒ
ܥܠ ܓ ، ܕ ܚܘܝ :
ܚ ܕ̂ ܓ ، ...... ܙܘܝܬܐ ܡܚܠܦܢܝܬܐ ،
ܙ ܕ̂ ܓ ، ...... ܙܘܝܬܐ ܡܚܠܦܢܝܬܐ



ܒܐܗܡܝܬܐ ܢܘܒܐ
ܟ ܠ ، ܛ ܝ ܗܡ ܡܩܛܥܝܢܝܗ̄
ܗ ܘ ܥܠ ܚ ، ܙ ܚܘܝ ܠܗܘܪܬܐ ܕܐܬܐ :

| ܙܘܝܬܐ ܡܚܠܦܢܝܬܐ ܗ̄ܝ ܠܗ | ܙܘܝܬܐ ܕܡܩܒܠܬܐ ܗ̄ܝ ܠܗ | ܙܘܝܬܐ |
|---|---|---|
| | | ٣<br>٥<br>٦<br>٨<br>٤ |

## ٤ ـ ٤ ܐܣܟܡܐ ܪܒܝܥܝܐ ܘܓܘܢܝ̈ܐ ܕܡܬܓܘܫܡܐ ܕܘܪܫܐ

ܠܘܚܐ :

ܐܣܟܡܐ ܪܒܝܥܝܐ :

ܟܒܝܫܐ ܕܒܝܬܐ ܦܫܝܛܐ ܕܠܗ ܐܣܟܡܐ
ܦܠܛܠܗ ܡܢ ܚܘܝܕܐ ܕܐܪܒܥܐ ܡܩܛܥ̈ܐ
ܗܪܟܐ $\overline{\text{ܐܒ}}$ ، $\overline{\text{ܒܓ}}$ ، $\overline{\text{ܓܕ}}$ ، $\overline{\text{ܕܐ}}$
ܘܐܣܟܡܐ ܡܢܝܪܐ ܦܝܫ ܩܪܝܐ
ܐܣܟܡܐ ܪܒܝܥܝܐ ، ܘܐܪܒܥܐ ܡܩܛܥ̈ܐ
ܗܪܟܐ ܦܝܫ ܩܪܝܐ ܐܠܥ̈ܐ ܕܐܣܟܡܐ ܪܒܝܥܝܐ .

ܢܘܩܙ̈ܐ ܐ ، ܒ ، ܓ ، ܕ ܦܝܫ ܩܪܝܐ ܪ̈ܫܐ ܕܐܣܟܡܐ ܪܒܝܥܝܐ ܘܐܣܟܡܐ ܪܒܝܥܝܐ ܦܝܫ ܡܬܚܙܝܐ ܐܝܟ ܚܘܝܕܘܬܐ ܕܪ̈ܫܘܗܝ ܘܦܬܓܡܐ ܐܚܪܢܝܐ ܕܐܣܟܡܐ ܪܒܝܥܝܐ ܒܐܣܟܡܐ ܢܩܝܦܐ ܠܗܘ ܐ ܒ ܓ ܕ ܐܘ ܒ ܓ ܕ ܐ ܐܘ ܓ ܕ ܐ ܒ ، ...... ܘܗܟܢܐ .

ܐܣܟܡܐ ܪܒܝܥܝܐ ܐ ܒ ܓ ܕ $= \overline{\text{ܐܒ}} \cup \overline{\text{ܒܓ}} \cup \overline{\text{ܓܕ}} \cup \overline{\text{ܕܐ}}$

$\overleftrightarrow{\text{ܐܒ}}$ ، $\overleftrightarrow{\text{ܒܓ}}$ ، $\overleftrightarrow{\text{ܓܕ}}$ ، $\overleftrightarrow{\text{ܕܐ}}$

ܠܗ ܐܣܟܡܐ ܢܩܝܦܐ ܟܕ :

$\overleftrightarrow{\text{ܐܒ}} \cap \overleftrightarrow{\text{ܒܓ}} = (\text{ܒ})$ ،
$\overleftrightarrow{\text{ܒܓ}} \cap \overleftrightarrow{\text{ܓܕ}} = (\text{ܓ})$ ،
$\overleftrightarrow{\text{ܓܕ}} \cap \overleftrightarrow{\text{ܕܐ}} = (\text{ܕ})$ ،
$\overleftrightarrow{\text{ܕܐ}} \cap \overleftrightarrow{\text{ܐܒ}} = (\text{ܐ})$

ܢܘܩܙ̈ܐ ܐ ، ܒ ، ܓ ، ܕ ܝܢܐ ܪ̈ܫܐ ܠܐܣܟܡܐ ܪܒܝܥܝܐ ܐ ܒ ܓ ܕ
ܘܐܠܗܝ ܝܢܐ :

$\overline{\text{ܐܒ}}$ ، $\overline{\text{ܒܓ}}$ ، $\overline{\text{ܓܕ}}$ ، $\overline{\text{ܕܐ}}$ ܘܡܢ ܐܣܟܡܐ ܠܒܝܬܐ ܟܝܘܣ :

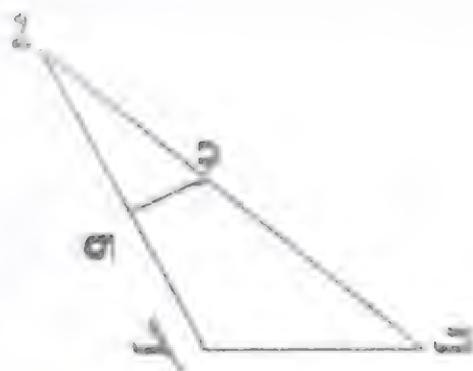
$\overleftarrow{\text{ܐܕ}} \cup \overleftarrow{\text{ܐܒ}} = \text{ܕ}\hat{\text{ܐ}}\text{ܒ}$ ،
$\overleftarrow{\text{ܒܐ}} \cup \overleftarrow{\text{ܒܓ}} = \text{ܐ}\hat{\text{ܒ}}\text{ܓ}$ .

$\overleftarrow{\text{ܓܒ}} \cup \overleftarrow{\text{ܓܕ}} = \text{ܒܓ̂ܕ}$ ،

$\overleftarrow{\text{ܕܓ}} \cup \overleftarrow{\text{ܕܐ}} = \text{ܓܕ̂ܐ}$

ܗܕܟܢܐ ܙܘܝܬܐ ܓܘܝܬܐ ܦܬܝܚ ܡܢܗ̇ ܙܘܝܬܐ ܕܡܪܒܥܬܐ ܓܘܝܬܐ ܐ ܒ ܓ ܕ .
ܚܙܝ ܕܟܠ ܐܝܟܢܐ ܡܢ ܐܝܟܢܐ ܕܡܪܒܥܬܐ ܓܘܝܬܐ ܐ ܒ ܓ ܕ ܐܝܬܘ ܦܫܝܛܬܐ
ܗܢܝܢ ܐܝܟ ܐܝܟܢܐ ܕܟܠ ܙܘܝܬܐ ܡܢ ܙܘܝܬܐ ܕܡܪܒܥܬܐ ܓܘܝܬܐ ܗܝ ܙܥܘܪܬܐ
ܡܢ ܬܪܝܢ ܩܕܡܝܬܐ ܕܐܝܬܘ ܓܒܐ ܕܗܝ ܙܘܝܬܐ .

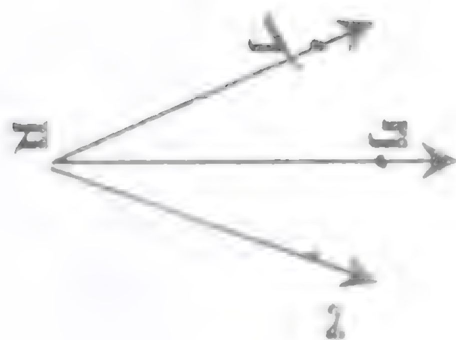
## ܕܘܪܫܐ




١ . ܒܡܫܬܠܡܬܐ ܐ ܒ̂ ܓ ܓܘܝܬܐ ܒܙܘܝܬܐ ܩܛܝܢܐ
ܕ ∈ $\overline{\text{ܐܒ}}$ ، ܗ ∈ $\overline{\text{ܐܓ}}$ .

ܐ . ܟܬܘܒ ܐܝܟܢܐ ܕܗܘܐ ܐܙܘܝܬܐ
ܓܘܝܬܐ ܠܕܘܟܬܗ .

ܒ . ܟܬܘܒ ܫܡܐ ܕܙܘܝܬܐ ܓܘܝܬܐ .




٢ . $\overleftarrow{\text{ܡܐ}}$ ، $\overleftarrow{\text{ܡܒ}}$ ، $\overleftarrow{\text{ܡܓ}}$ ܒܙܘܝܬܐ ܕܢܩܝܦܐ .

ܐ . ܦܣܘܩ ܓܘܫܡܐ ܕܙܘܝܬܐ ܓܘܝܬܐ
ܘܟܬܘܒ ܫܡܗ .

ܒ . ܟܬܘܒ ܐܝܟܢܐ ܕܘܟܬܐ ܕܙܘܝܬܐ
ܓܘܝܬܐ ܠܕܘܟܬܗ .




٣ . ܡܬܠܬܐ ܐ ܒ ܓ ܓܘܫܡܐ ܠܗ ܙܘܝܬܐ ܢܩܝܦܐ
ܩܪܘܒ ܠܗ ܢܩܘܫܬܐ ܕ ܕܢܦܠܐ ܥܠܘ ܓܒܗ .

ܐ . ܓܪܘܡ $\overline{\text{ܐܕ}}$ ، $\overline{\text{ܕܓ}}$

ܒ . ܟܬܘܒ ܫܡܐ ܕܙܘܝܬܐ ܓܘܝܬܐ ܕܐܝܬ ܒܓܘܫܡܐ .

ܓ. ܡܚܘܝ ܐܝܟܐ ܕܗܘܐ ܐܣܟܡܐ ܪܒܝܥܝܐ.

ܕ. ܡܚܘܝ ܙܘܝܬܐ ܕܐܣܟܡܐ ܪܒܝܥܝܐ ܒܓܘܗ

٤. ܚܘܒܪܐ ܕܡܫܘܚܬܐ ܕܙܘܝܬܐ ܓܘܝܬܐ

ܕܐܣܟܡܐ ܪܒܝܥܝܐ:

ܐܣܟܡܐ ܪܒܝܥܝܐ ܗ̂، ܙ̂، ܚ̂، ܠ̂،

ܕܟܝܢܐ ܒܐܣܟܡܐ ܢܦܝܩܐ ܠܗܘ ܗ،

ܙ، ܚ، ܠ ܒܝܢܐ ܙܘܝܬܐ ܠܘܝܬܐ.

ܦܣܘܩ ܡܢ ܙ، ܠ ܐܝܟ ܒܐܣܟܡܐ

$\overline{ܙܠ}$ ܦܠܓ ܠܐܣܟܡܐ ܪܒܝܥܝܐ ܗ ܙ ܚ ܠ

ܠܬܪܝܢ ܡܬܠܬܐ ..............

ܒܡܬܠܬܐ ܗ ܙ ܠ:

ܡܫܘܚܬܐ ܗ̂ = ٧٥°، ܡܫܘܚܬܐ

ܗ ܙ̂ ܠ = ٧٠°

ܡܫܘܚܬܐ ܗ ܠ̂ ܙ = ...... ܠܡܢܐ؟

ܒܡܬܠܬܐ ܚ ܙ̂ ܠ:

ܡܫܘܚܬܐ ܚ̂ = ٨٠°، ܡܫܘܚܬܐ ܠ ܙ̂ ܚ = ٤٠°

ܡܫܘܚܬܐ ܙ ܠ̂ ܚ = ...... ܠܡܢܐ؟

ܡܫܘܚܬܐ ܗ ܙ̂ ܚ = ...... + ...... = ...... ܠܡܢܐ؟

ܗܕܟܐ ܡܫܘܚܬܐ ܗ ܠ̂ ܚ = ...... + ...... = ...... ܠܡܢܐ؟

ܡܢ ܕܡܚܫܒܢܢ ܚܘܒܪܐ ܕܡܫܘܚܬܐ ܕܙܘܝܬܐ ܓܘܝܬܐ ܕܐܣܟܡܐ ܪܒܝܥܝܐ ܗ ܙ ܚ

ܠ ܐܝܟ ܕܐܬܐ:

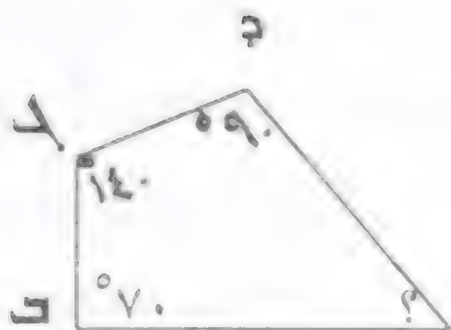
ܡܫܘܚܬܐ ܗ̂ + ܡܫܘܚܬܐ ܗ ܙ̂ ܚ + ܡܫܘܚܬܐ ܚ̂ + ܡܫܘܚܬܐ ܚ ܠ̂ ܗ =

... + ... + ... + ... = ...

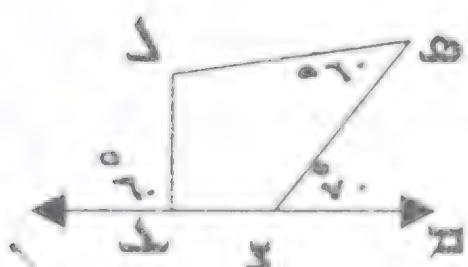
ܗܝ ܠܡܢܐ ܕܡܬܕܪܟܐ ܡܦܠܓܐ ܐܣܟܡܐ ܪܒܝܥܝܐ ܐܚܪܢܐ ܡܢ ܒܦܘܪܫܐ؟

| ܚܘܒܪܐ ܕܡܫܘܚܬܐ ܕܙܘܝܬܐ ܓܘܝܬܐ ܕܐܣܟܡܐ ܪܒܝܥܝܐ = ٣٦٠° |
|---|

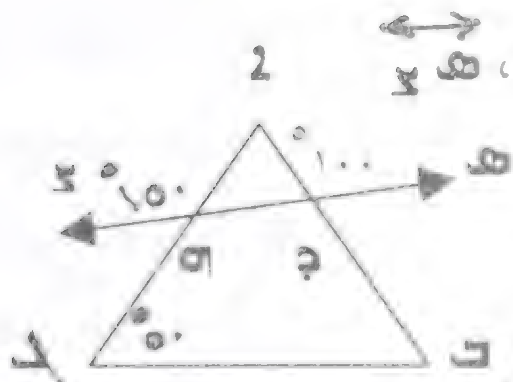
## ܚܘܼܪ̈ܓܹܐ




( ١ ) ܐܸܣܟܹܡܵܐ ܕܐܲܪ̈ܒܥܵܐ ܐ ܒ ܓ ܕ
ܕܥܒܝܕܐ ܒܐܣܟܡܐ ܢܩܝܦܐ ܠܗܘ
ܡܫܘܚܬܐ ܒ̂ = ٧٠°، ܡܫܘܚܬܐ
ܓ̂ = ١٤٠°، ܡܫܘܚܬܐ ܕ̂ = ٩٠°
ܫܟܘܚ ܡܫܘܚܬܐ ܐ̂

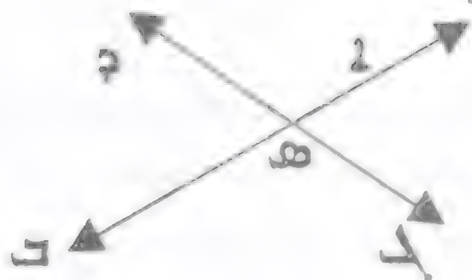



( ٢ ) ܒܐܣܟܡܐ ܢܩܝܦܐ ܐܣܟܡܐ
ܕܐܪ̈ܒܥܐ ܗ ܙ ܒ ܕ ܘܠܗܘ ܡܫܘܚܬܐ
ܗ̂ = ٦٠°، ܢܘܩܙܬܐ ܙ، ܒ ܡܢܬܝܢ
ܠܣܪܛܐ ܚ،
ܡܫܘܚܬܐ ܗ ܙ̂ ܚ = ٧٠°،
ܡܫܘܚܬܐ ܕ ܒ̂ = ٦٠°
ܫܟܘܚ ܡܫܘܚܬܐ ܕ̂




( ٣ ) ܐܣܟܡܐ ܡܚܘܝܐ ܠܗ ܡܬܠܬܐ ܐ ܒ ܓ، ܗ ܙ↔
ܡܫܘܚܬܐ ܐ ܕ̂ ܗ = ١٠٠°
ܡܫܘܚܬܐ ܐ ܘ̂ ܙ = ١٥٠°
ܡܫܘܚܬܐ ܓ̂ = ٥٠°
ܫܟܘܚ ܟܠ ܡܦܠܚܬܐ ܕܢܦܩܬܐ ܡܫܘܚܬܐ ܒ̂.

### ٤ ـ ٥ ܠܣܪ̈ܛܐ ܡܦܓܥ̈ܢܐ




ܐ ܒ↔، ܓ ܕ↔ ܡܬܦܓܥܝܢ، ܠܗ ܗ ܢܩܝ
ܒܐܣܟܡܐ ܢܩܝܦܐ
ܐ ܒ↔ ∩ ܓ ܕ↔ = {ܗ}

٤ ـ ٥ ܣܪ̈ܛܐ ܡܫܘ̈ܚܢܐ

ܐܢ ܒܐܦܝܘܬܐ ܕܢܣܒܐ ܐܒ ، ܓܕ ܠܐ ܡܦܓܥܝ :

ܐܒ ∩ ܓܕ = ∅ ܒܗܝ ܕܐܝܬ ܒܐܦܝܐ :

ܐܒ ، ܓܕ ܡܫܘ̈ܚܢܐ .

ܘܟܬܒܝ ܐܒ // ܓܕ

ܘܩܪܝ ܣܪܛܐ ܐܒ ܡܫܘܚ ܓܕ

ܘܒܕܡܘܬܐ ܠܗܘ ܕ ܐܒ ⊂ ܐܒ ، ܓܕ ⊂ ܓܕ ܒܗܝ ܐܝܬ ܡܨܝ ܕܐܡܪܝܢ

ܐܒ // ܓܕ

ܒܐܬܪܐ ܢܣܒܐ :

ܠܚ // ܗܕ :

ܠܚ // ܗܕ ، ܘܟܢ ܐܠ // ܒܗ ،

ܚܠ // ܒܗ ، ܠܚ // ܒܕ ،

ܐܚ // ܗܒ ، ......

ܚܘܦܪܐ :

ܐܒ // ܓܕ ܐܝܟ ܒܐܬܪܐ ܢܣܒܐ :

ܟܬܘܒ :

ܐܗ // ...... ، ܓ // ......

...... // ܒܐ ، ...... // ܚ

...... // ܕ

ܚܒܝܫܘܬܐ ܕܙܘܝܬܐ ܕܡܫܘ̈ܚܢܐ :

ܒܐܬܪܐ ܢܣܒܐ :

ܐܒ ܡܫܚܠܦܐ ܥܡ ܓܕ ܠܗ ܒܢܩܘܫܐ ܗ

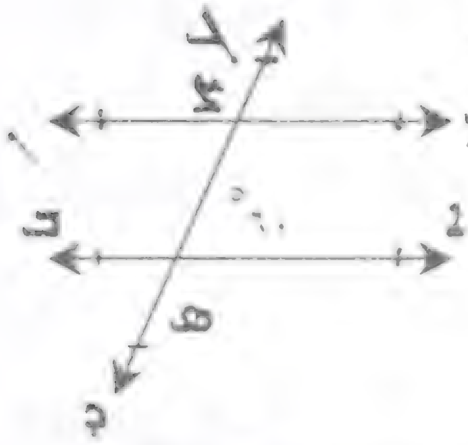
ܘܒܢܘܚܐ ܓܗܐ = ٦٠°

ܫܩܘܠ ܒܢܩܘܫܐ ܐܝܟ ܙ ∈ ܓܕ

ܒܡ ܦܘܠܚܢ ܢܡܠܝܬܐ ܘܐܟܘܡ ܓ ܙ̂ ܠ
ܡܟܘܣܬܗ ٦٠°

ܬܗܘܐ ܕܐܝܬ ܐܟܘܡ $\overleftarrow{ܓܙ}$ ܒܗܦܟܐ ܠܟܘ $\overleftarrow{ܙܓ}$

ܒܗܘܢܐ $\overleftrightarrow{ܐܒ}$ ، $\overleftrightarrow{ܓ}$ ܡܬܦܣܩܢ $\overleftrightarrow{ܠܕ}$ ܒܢܘܩܙܬܐ




ܗ ، ܙ ܥܡ ܓ ܙ̂ ܠ ، ܐ ܗ̂ ܠ ܕܡܫܚܬܐ ܘܢܩܘܫ ܓ
ܒܡܟܘܣܬܐ .

ܘܦܠܛ ܡܢ ܕܐܝܬ $\overleftrightarrow{ܐܒ} // \overleftrightarrow{ܓ}$

ܥܡ ܣܘܪܐ ܗܘܝܘ $\overleftrightarrow{ܐܒ} \cap \overleftrightarrow{ܓ} = \varnothing$

| |
|---|
| ܐܢ ܡܬܦܣܩܢ ܬܪܬܝܢ ܬܪܝܨܬܐ ܘܐܝܬ ܗܘܐ ܬܪܝܢ ܙܘܝܬܐ ܕܡܫܚܬܐ ܡܟܘܣܬܐ ܒܡܟܘܣܬܐ ܬܪܬܝܢ ܡܬܦܪܫܢ ܒܗܘܢ . |

## ܚܘܫܒܐ



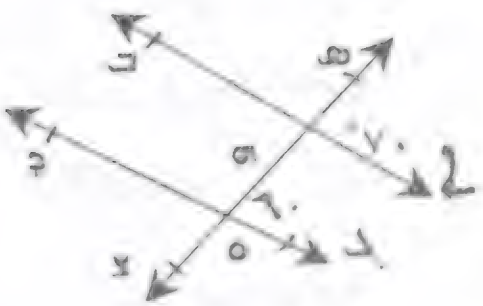
( ١ ) ܒܐܗܡܢܐ ܢܩܒܠܐ :

$\overleftrightarrow{ܗܙ}$ ، $\overleftrightarrow{ܓ}$ ܥܡ ܡܬܦܣܩܢ $\overleftrightarrow{ܠܟ}$

ܠܘ ܗ ، ܘ ، ܘܡܟܘܣܬܐ ܗ ܗ̂ ܠ = ١٢٠°

ܡܟܘܣܬܐ ܓ ܘ̂ ܗ = ١٢٠°

ܐܢܐ $\overleftrightarrow{ܗܙ} // \overleftrightarrow{ܓ}$ ؟ ܕܚܘܕ ܥܠܬܐ .



( ٢ ) $\overleftrightarrow{ܐܒ}$ ، $\overleftrightarrow{ܠܕ}$ ܥܡ ܡܬܦܣܩܢ

$\overleftrightarrow{ܗܙ}$ ܠܘ ܗ ، ܘ ܐܝܟ ܒܐܗܡܢܐ ܢܩܒܠܐ

ܐܢܐ $\overleftrightarrow{ܐܒ} // \overleftrightarrow{ܠܕ}$ ؟ ܕܚܘܕ ܥܠܬܐ .

(٣) ܒܐܣܟܡܐ ܢܩܝܦܐ :

ܐܒ ، ܓܕ ، ܗܘ ܗܢܘܢ ܡܬܢܓܕܝܢ ܐܡ

ܐܕܐ ܐܒ // ܓܕ ؟ ܕܡܢ ܥܠܬܐ .

ܐܕܐ ܓܕ // ܗܘ ؟ ܕܡܢ ܥܠܬܐ .

| ܢܟܣܝܘܬܐ ܕܙܘܝܬܐ ܕܡܫܚܬܐ ܠܐ ܗܘܐ ܡܩܒܠܐ ܡܫܘܚܬܐ |
| --- |

ܐܬܘܡ ܒܡܬܘܚ ܐܒ ، ܘܣܘܟ ܢܘܩܙܬܐ

ܓ ∉ ܐܒ ܒܐܣܟܡܐ ܢܩܝܦܐ

ܡ ܒܡܦܠܣܬܐ ܕܚܘܝܬܐ ܘܡܫܠܡܬܐ ܘܣܝܟ

ܘܣܝܡܬܐ ܐܬܘܡ ܡܝ // ܐܒ

، ܗܙ ܡܬܢܓܕܝܢ ܠܗ ܓ ، ܕ

ܐܝܟ ܒܐܣܟܡܐ ܕܠܬܚܬ .

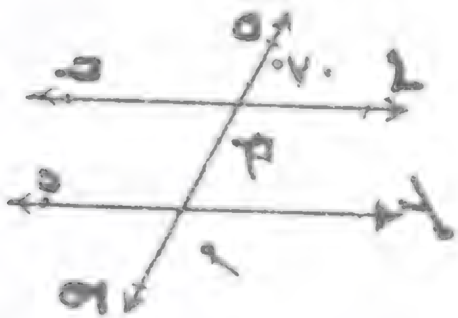
ܡ ܒܡܦܠܣܬܐ ܕܢܦܠܝܬܐ ܘܐܡܝܪ ܠܣܘܪܓܐ ܕܐܬܐ :

| ܙܘܝܬܐ | ܡܫܘܚܬܗ | ܙܘܝܬܐ ܕܫܘܝܐ ܠܗ | ܡܫܘܚܬܗ |
| --- | --- | --- | --- |
| ܡ ܠ̂ ܗ<br>ܗ ܠ̂ ܝ<br>ܡ ܠ̂ ܕ<br>ܝ ܠ̂ ܕ | | | |

ܦܪܘܫܬܐ :

ܐܢ ܡܬܦܠܓܝܢ ܬܪܝܢ ܬܪܝܢ ܡܫܘܚܬܐ ܒܠ ܙܘܝܬܐ ܡܢ
ܙܘܝܬܗ ܕܡܩܒܠܬܐ . ܗܘܝ ܫܘܝܢ ܒܡܫܘܚܬܐ .

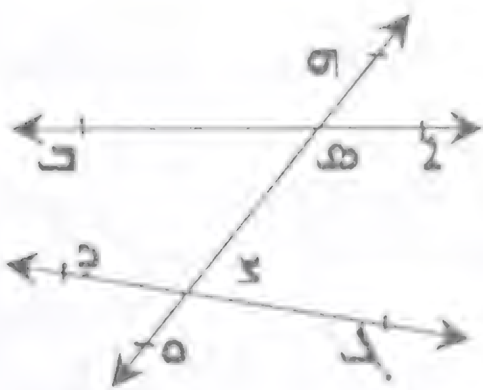
ܘܗܫܐ ܕܡܘܡܝܠܘܗܝ ܡܘܪܟܒܐ ܚܕܢܝܐ ܕܡܬܓܠܘܗܝ ܠܦܪܘܫܬܐ ܠܚܢܝܬܐ .
ܪܕܐ ܡܢܗ ܕܟܠ ܡܦܠܓܬܐ ܕܡܩܒܠܬܐ ܠܗܘܡܢ ܠܗܘܪܟܒܐ ܕܪܗܐ ܡܢ
ܐܡܬܝ ܡܫܘܚܬܐ ܕܟܡܗ ܐ ܒ // ܓ ܕ ܘܡܢ ܡܬܦܠܓܝܢ ܗ ܘ ܟܡ ܙ .




| ܡܫܘܚܬܗ | ܙܘܝܬܐ ܕܫܘܝܐ ܠܗ ܠܗ | ܡܫܘܚܬܗ | ܙܘܝܬܐ |
| --- | --- | --- | --- |
| | | | ܐ $\hat{ܡ}$ ܘ<br>ܘ $\hat{ܡ}$ ܒ<br>ܐ $\hat{ܡ}$ ܙ<br>ܒ $\hat{ܡ}$ ܙ |

ܢܚܘܐ ܕܙܘܝܬܐ ܡܬܚܠܦܬܐ ܐܢ ܬܪܝܢ ܡܫܘܚܬܐ ܢܗܘܘܢ :

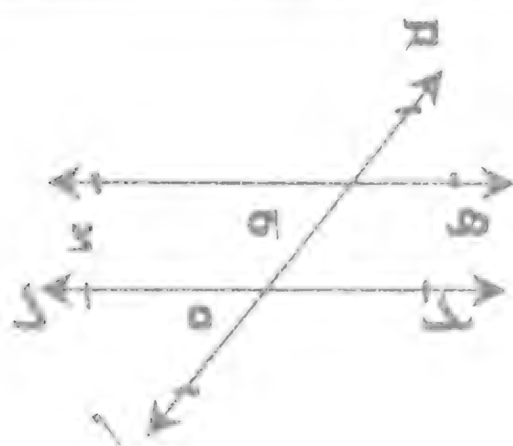
ܢܘܚ ܠܐܡܬܝ ܡܫܘܚܬܐ ܡܢ ܐ ܒ ، ܓ ܕ
ܘܡܢ ܡܬܦܠܓܝܢ ܗ ܘ ܟܡ ܚ ، ܙ .
ܐ $\hat{ܚ}$ ܙ ، ܚ $\hat{ܙ}$ ܕ ܦܢܝ ܕܝܠܗ ܙܘܝܬܐ
ܡܬܚܠܦܬܐ



ܘܗܳܕ݂ ܗܳܕ݂ܶܐ ܒ ܗ̂ ܓ ، ܠ ܓ̂ ܗ ܙܳܘܝܳܐ ܡܫܰܚܠܦ݂ܶܐ ،

ܡܶܢ ܒܡܦܰܠܚܳܐ ܕܢܰܩܠܺܝܒܳܐ ܡܥܰܒܚܳܐ ܕܡܫܘܚܳܐ ܕܬܪܶܝܢ ܙܳܘܝܳܬܳܐ
ܡܫܰܚܠܦ݂ܳܬ݂ܳܐ ܕܗܘܰܕܥܳܐ .

| ܙܳܘܝܳܬܳܐ | ܡܫܘܚܬܳܗ̇ | ܙܳܘܝܬܳܐ ܕܡܩܰܒܠܳܐ ܥܰܠ ܠܳܗ̇ | ܡܫܘܚܬܳܗ̇ |
|---|---|---|---|
| ܐ ܗ̂ ܓ<br>ܒ ܗ̂ ܓ | | ܗ ܓ̂ ܕ<br>ܠ ܓ̂ ܗ | |



ܡܳܐ ܚܙܝܳܐ ܗܘܳܬ ؟

ܘܒܬܪ ܠܫܘܠܡܐ ܕܢܩܦܐ ܥܡ

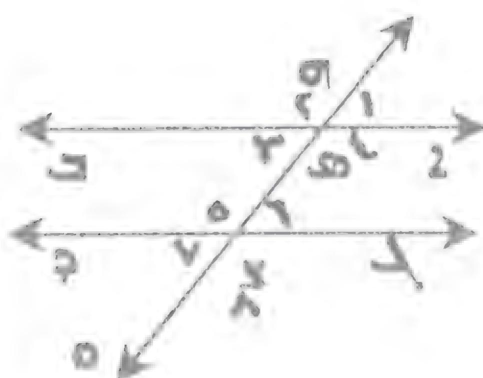
$\overleftrightarrow{ܗ ܓ}$ // $\overleftrightarrow{ܒ ܠ}$ ، $\overleftrightarrow{ܫ ܝ}$ ، ܡܦܰܣܩܳܐ ܥܠ ܬܪܘܝܗܘܢ

ܠܗ ܗ ، ܘ

ܡܦܠܚ ܢܩܠܝܒܐ ܠܗ ܥܠܬܐ ܕܡܫܘܚܬܐ

ܕܟܠ ܙܘܝܬܐ ܡܫܚܠܦܬܐ ܘܟܠܝ ܠܬܘܪܓܡܐ ܕܗܘܐ :

| ܙܳܘܝܳܬܳܐ | ܡܫܘܚܬܳܗ̇ | ܙܳܘܝܬܳܐ ܕܡܩܰܒܠܳܐ ܥܰܠ ܠܳܗ̇ | ܡܫܘܚܬܳܗ̇ |
|---|---|---|---|
| ܗ ܗ̂ ܘ<br>ܓ ܗ̂ ܘ | | | |



ܡܳܐ ܒܚܙܳܝܳܐ ܗܘܳܬ ؟

ܐܝܟ ܡܢ ܕܠܐ ܡܦܠܚܐ ܕܢܩܠܝܒܐ

ܠܬܪܘܬܐ ܡܢ ܣܕܝܪܘܬܐ ܕܡܨܒܪܢܘܬܐ

ܡܨܒܪܐ ؟

ܚܙܝ ܠܐܘܡܢܘܬܐ ܕܢܫܦܐ ܕܠܗܘܢ :

$\overleftrightarrow{ܐ ܒ}$ // $\overleftrightarrow{ܠ ܕ}$ ، $\overleftrightarrow{ܗ ܘ}$ ܥܡ ܡܦܣܩܢܐ ܠܗ ܗ ، ܓ

ܙܘܝܬܐ ٤̂ = ܙܘܝܬܐ ٨̂

ܒܕܘܟܬܐ ܘܢܣܒܬܐ

ܐܦ ܙܘܝܬܐ ٨̂ = ܙܘܝܬܐ ٥̂ ܒܡܫܚܠܦܬܐ ܒܓܘܝܐ

ܙܘܝܬܐ ٤̂ = ܙܘܝܬܐ ٥̂

ܘܗܢܝܢ ܙܘܝܬܐ ܡܫܚܠܦܬܐ

ܗܟܘܬ ܙܘܝܬܐ ٣̂ = ܙܘܝܬܐ ٧̂ ܒܕܘܟܬܐ ܘܢܣܒܬܐ

ܐܦ ܙܘܝܬܐ ٧̂ = ܙܘܝܬܐ ٦̂ ܒܡܫܚܠܦܬܐ ܒܓܘܝܐ

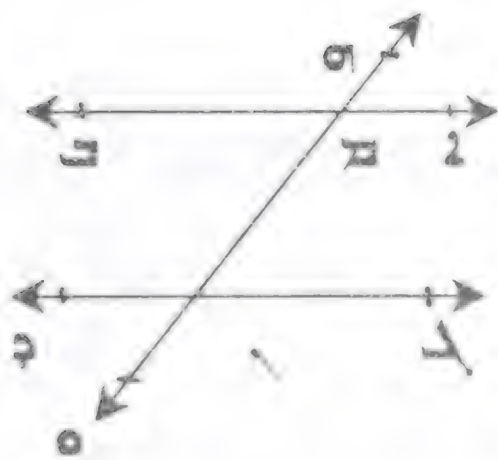
ܙܘܝܬܐ ٣̂ = ܙܘܝܬܐ ٦̂

ܘܗܢܝܢ ܙܘܝܬܐ ܡܫܚܠܦܬܐ

ܦܪܫܐ :

| ܐ. ܡܥܒܪܢܐ ܚܕ ܚܕ ܚܕܝܪܐ ܡܥܒܪ ܥܠ ܬܪܝܢ ܘܢܝܬܐ ܡܫܚܠܦܬܐ ܫܘܝܬܐ ܒܡܫܘܚܬܐ . |
|---|

## ܚܘܦܪܐ




(١) $\overleftrightarrow{ܐܒ}$ // $\overleftrightarrow{ܓܕ}$ ، ܗܘ ܚܘܛ ܡܥܒܪܢܐ

ܠܗ ܛ ، ܝ

ܐܝܟ ܕܐܚܝܕܐ ܢܣܒܐ ܚܘܛ ܒܫܘܬܐ

ܟܠ ܙܘܝܬܐ ܡܫܚܠܦܬܐ :

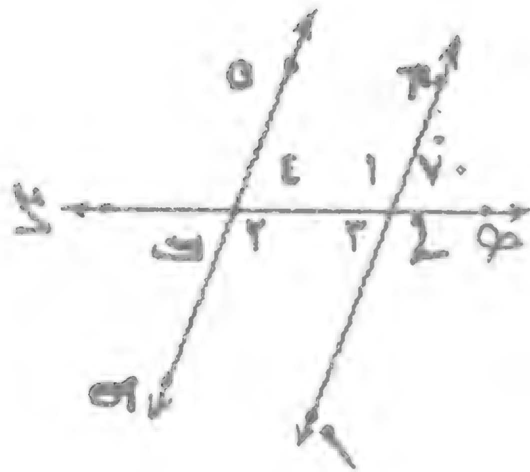
ܙܘܝܬܐ ܓܛ̂ ، = ܙܘܝܬܐ ...^... ܥܠܬܐ

ܙܘܝܬܐ ܒܛ̂ ، = ܙܘܝܬܐ ...^... ܥܠܬܐ

(٢) $\overleftrightarrow{ܛܝ}$ // $\overleftrightarrow{ܗܘ}$ ، $\overleftrightarrow{ܫܨ}$

ܡܚܠܦܐ ܡܢܟܣ ܠܗ ܐ ، ܒ

ܙܘܝܬܐ ܛ ܐ̂ ܫ = ٧٠°




ܐܡܪ ܒܐܗܡܢܬܐ ܢܣܒܩܐ

ܡܫܘܚܬܐ ٣̂ = ...... ܝܠܗܐ

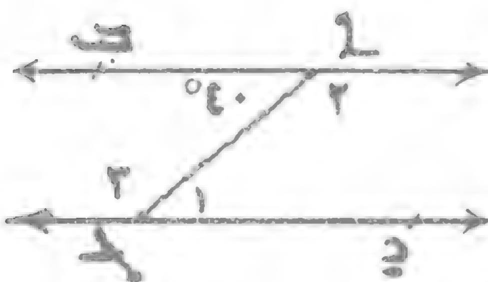
ܡܫܘܚܬܐ ٤̂ = ...... ܝܠܗܐ

ܡܫܘܚܬܐ ١̂ = ...... ܝܠܗܐ

ܡܫܘܚܬܐ ١̂ = ...... ܝܠܗܐ

( ٣ ) $\overleftrightarrow{ܐܒ}$ // $\overleftrightarrow{ܓܕ}$ ، $\overleftrightarrow{ܐܓ}$ ܦܣܩܢܐ

ܡܠܟܘܫ ܠܗ ܐ ، ܓ ܐܡܪ ܒܐܗܡܢܬܐ ܢܣܒܩܐ



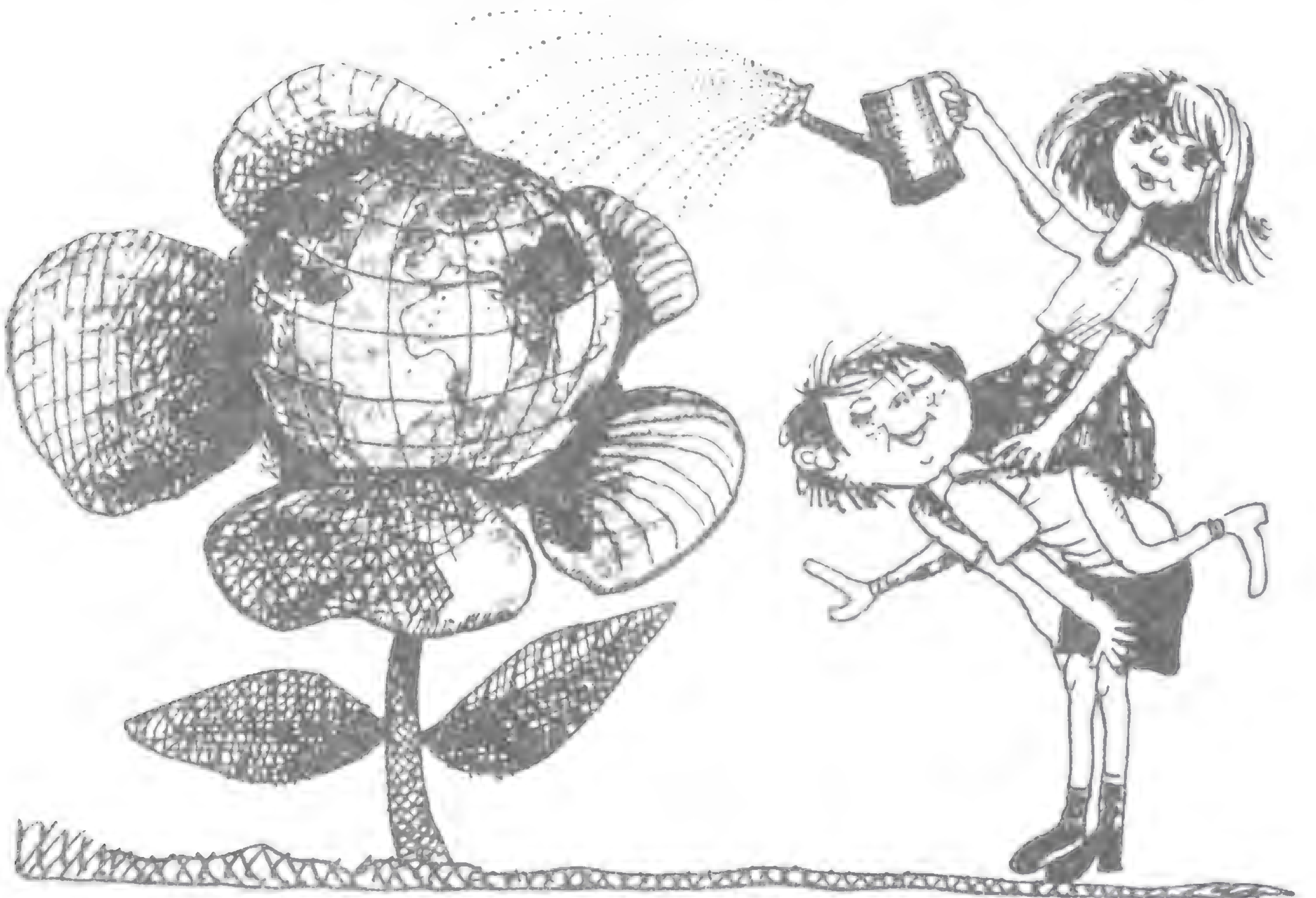

ܡܫܘܚܬܐ ܒ ܐ̂ ܓ = ٤٠°

ܦܘܫ :

ܡܫܘܚܬܐ ١̂ = ...... ܝܠܗܐ

ܡܫܘܚܬܐ ٢̂ = ܡܫܘܚܬܐ ٣̂ ܝܠܗܐ

* ——————————— *



# ܦܣܘܩܐ ܚܡܝܫܝܐ

## ܦܫܝܛܐ ܘܦܫܝܛܘܬܐ

[ ٥ . ١ ] ܦܫܝܛܐ

[ ٥ . ٢ ] ܦܫܝܛܘܬܐ

[ ٥ . ٣ ] ܡܫܘܚܬܐ ܕܪܘܫܡܐ

[ ٥ . ٤ ] ܦܠܓܘܬܐ ܦܫܝܛܬܐ

## ܦܘܫܩܐ ܡܫܟܚܢܐ

### ٥ . ١ ܦܣܩܐ

ܡܘܦܩܐ ( ١ ) :

ܡܢܝܢܐ ܒܝܢ ܬܠܡܝܕܐ ܘܬܠܡܝܕܬܐ ܫܘܝܐ ٦٠ ܗܘ ܘܡܢܝܢܐ ܒܝܢ ܬܠܡܝܕܐ ܘܦܠܓܗ̈ܘܢ ٦٥ ܗܘ ، ܐܝܢܘ ܐܘܪܟܐ ܒܝܬ ܬܠܡܝܕܬܐ ؟ ܟܡܐ ܐܝܬ ܡܢܝܢܐ ܕܐܘܪܟܐ ܬܠܡܝܕܬܐ ܢܛܠ ܣܘܥܪܢܐ ؟

* ܚܘܝܢ ܕܐܘܪܟܐ ܣܘܥܪܢܐ ܒܝܬ ܬܠܡܝܕܬܐ ܗܠܝܢ ܡܢ ܬܠܡܝܕܬܐ ܒܫܘܝܘܬܐ ° ܗܘ ܘܐܘܪܟܐ ܬܠܡܝܕܬܐ ܒܝܬ ܬܠܡܝܕܬܐ ܡܢ ܣܘܥܪܢܐ ܒܫܘܝܘܬܐ ° ܗܘ .

ܡܘܦܩܐ ( ٢ ) :

ܠܘܩܒܠ ܕܡܘܚܢܝܢ ؛ ܫܢܐ ܘܠܘܩܒܠ ܕܒܢܝܗ ٢٨ ܫܢܐ . ܗܐ ܒܡܫܬܐ ܕܠܘܩܒܠ ܕܡܘܚܢܝܢ ܒܠܘܩܒܠ ܕܒܢܝܗ ܒܐܡܪܝܢ ܕܡܘܚܢܝܢ ܒܝܬ ܡܢ ܒܢܝܗ ٢٤ ܫܢܐ ܘܒܢܝܐ ܕܡܘܚܢܝܢ ٧ ܐܝܟ ܕܠܘܩܒܠ ܕܒܢܝܗ ܘܒܢܝܗ ܡܘܚܢܝܢ ܠܘܩܒܠ ܕܒܢܝܐ .

ܡܘܦܩܐ ( ٣ ) :

ܡܢܝܢܐ ܕܐܘܪܟܐ ܒܝܢ ܬܠܡܝܕܐ ܘܬܠܡܝܕܬܐ ٦٠ ܗܘ ܘܡܢܝܢܐ ܕܐܘܪܟܐ ܒܝܢ

ܒܓܪܓ ܘܠܡܥܠܐ ܕܐܝܬ ܦܝܪ ٦٠٠ ܟܡ . ܟܕܘܐ ܡܘܕܒܐ ܕܐܘܕܡܐ ܒܓܪܓ - ܐܝܬ
ܦܝܪ ܝܚܫܒܐ ܗܘܐ ܡܘܕܒܐ ܕܐܘܕܡܐ ( ܒܓܪܓ - ܒܟܡܘܬܐ ) .

ܡܘܦܩܐ ( ٤ ) :

ܝܘܡܢܐ ܐܦܣܘܢܟܝܗ ٨٠ ܕܩܢܪܐ ، ܐܢ ܝܟܡܠܗ ܡܢܢܗ ١٠ ܕܩܢܪܐ ܟܕܘܐ ܨܪܦܐ
٧ ܗܘܐ ܕܡܐ ܝܟܡܠܗ ܘܡܐ ܕܝܟܡܠܗ ܢܠܗ $\frac{١}{٨}$ ܡܢ ܐܦܣܘܢܟܝܗ .

ܒܡܘܦܩܐ ( ١ ) ܡܫܟܠܢܐ ܠܟܘܪܐ ܗܘ ܦܢܡܟܐ ܟܡ ܡܢܢܐ ، ܘܒܟܘ
ܡܘܦܩܐ ( ٢ ) ، ( ٣ ) ، ( ٤ ) ܡܫܟܠܢܐ ܠܦܠܓܘܬܐ ܘܡܡܦܪܨܗ ܗܒܪܐ
ܠܦܢܡܟܐ ܕܡܢܢܐ .

ܘܡܬܢܒܗ :

| |
|---|
| ܒܕ ܡܡܦܪܨܗ ܗܒܪܐ ܟܢܕ ܦܠܓܘܬܐ ܠܦܢܡܟܐ ܟܡ ܡܢܢܐ ܦܝܫ ܡܢܐ ܗܒܪܐ ( ܦܣܩܐ ) |

ܗܘ ܡܘܦܩܐ ( ٢ ) $\frac{\text{ܠܘܡܕܐ ܕܡܘܫܢ}}{\text{ܠܘܡܕܐ ܕܟܒܗ}} = \frac{\cancel{٤}^{١}}{\cancel{٢٨}_{٧}} = \frac{١}{٧}$

ܘܦܝܫ ܡܢܐ ܠܘܡܕܐ ܕܡܘܫܢ ܠܟܘܡܕܐ ܕܟܒܗ ܐܝܟ ܦܣܩܐ ١ ܠ ٧ ܘܦܝܫ
ܡܒܪܐ ܒܐܡܒܡܐ ١ : ٧

ܘܗܘ ܡܘܦܩܐ ( ٣ ) $\frac{\text{ܡܘܕܒܐ ܕܒܓܪܓ - ܒܟܡܘܬܐ}}{\text{ܡܘܕܒܐ ܕܒܓܪܓ - ܐܝܬ ܦܝܪ}} = \frac{\cancel{٦٠}^{١}}{\cancel{٦٠٠}_{١٠}} = \frac{١}{١٠}$

ܘܗܘ ܡܘܦܩܐ ( ٤ ) $\frac{\text{ܟܡܘܬܐ ܕܝܟܡܠܗ ܝܘܡܢܐ}}{\text{ܐܦܣܘܢܟܝܗ ܕܝܘܡܢܐ}} = \frac{\cancel{١٠}^{١}}{\cancel{٨٠}_{٨}} = \frac{١}{٨}$

ܦܘܚܡܐ ( ٥ ) :

ܐܢ ܟܠ ܚܐܘܪܐ ܢܓܕܐ ܡܘܪܟܗ ٦ ، ٢٥ ܡܝܬܪܐ ܘܐܢ ܟܠ ܡܘܫܚܢ ܢܓܕܐ ܡܘܪܟܗ ٢ ، ٥ ܡܝܬܪܐ ، ܡܢܐ ܝܠܗ ܦܘܚܡܐ ܕܡܘܪܟܐ ܕܢܓܕܐ ܕܚܐܘܪܐ ܠܡܘܪܟܐ ܕܢܓܕܐ ܕܡܘܫܚܢ ؟

$$\text{ܚܠܐ :}\quad \frac{\text{ܡܘܪܟܐ ܕܢܓܕܐ ܕܚܐܘܪܐ}}{\text{ܡܘܪܟܐ ܕܢܓܕܐ ܕܡܘܫܚܢ}} = \frac{٢,٥}{٦,٢٥} = \frac{٢٥٠}{٦٢٥} = \frac{٢}{٥}$$

ܦܘܚܡܐ ( ٦ ) :

ܡܫܘܚܬܗ ܕܚܩܠܐ $\frac{١}{٤}$ ܕܐܘܪܚܐ ܘܡܫܘܚܬܗ ܕܒܝܬܐ $\frac{٣}{٧}$ ܕܐܘܪܚܐ ܗ̈ܘ ، ܡܢܐ ܝܠܗ ܦܘܚܡܐ ܕܡܢ ܡܫܘܚܬܗ ܕܚܩܠܐ ܠܡܢ ܡܫܘܚܬܗ ܕܒܝܬܐ ؟

$$\text{ܚܠܐ :}\quad \frac{\text{ܡܢ ܡܫܘܚܬܗ ܕܚܩܠܐ}}{\text{ܡܢ ܡܫܘܚܬܗ ܕܒܝܬܐ}} = \frac{\frac{١}{٤}}{\frac{٣}{٧}} = \frac{١}{٤} \div \frac{٣}{٧}$$

$$= \frac{١}{٤} \times \frac{٧}{٣} = \frac{٧}{١٢}$$

ܦܘܚܡܐ ( ٧ ) :

ܡܢܐ ܦܘܚܡܐ ܕܡܫܘܚܬܐ ܕܡܘܪܟܐ ܕܨܘܪܬܐ ܠܡܫܘܚܬܐ ܕܡܘܪܟܐ ܕܐܪܥܐ ܐܢ ܒܝܕ ܠܒܘܫ ܕܡܘܪܟܐ ܕܨܘܪܬܐ ܝܠܗ ١٥ ܣܡ ܘܡܘܪܟܐ ܕܐܪܥܐ ٢ ܡ ؟

ܚܠܐ : ܡܘܪܟܐ ܕܐܪܥܐ = ٢ × ١٠٠ = ٢٠٠ ܣܡ

$$\text{ܦܘܚܡܐ} = \frac{\text{ܡܘܪܟܐ ܕܨܘܪܬܐ}}{\text{ܡܘܪܟܐ ܕܐܪܥܐ}} = \frac{\overset{٣}{\cancel{١٥}}}{\underset{٤٠}{\cancel{٢٠٠}}} = \frac{٣}{٤٠}$$

## ܕܘܪܫܐ ( ٥ - ١ )

ܟܬܘܒ ܠܦܘܫܚܐ ܕܗܠܝܢ ܡܦܘܪܫܐ ܕܨܘܪܬܐ ܦܫܝܛܬ̈ܐ ܐܝܟ ܕܒܗ ܡܬܘܦܩܐ :

١/ ٦ : ٤٨ = $\frac{\cancel{٦}^{١}}{\cancel{٤٨}_{٨}} = \frac{١}{٨}$

٢/ ١٥ : ٩٠

٣/ ٧٥ : ٢٢٥

٤/ ١٢٠ : ٦٠٠

٥/ $\frac{١}{٤}$ : $\frac{١}{٨}$

٦/ ٣٢٥ : ٢,٢٥

ܡܬܘܦܩܐ ( ٨ ) :

ܐܝܬܠܗ ܡܗܝܢܐ ٣٠ ܙܘ̈ܙܐ ܘܐܝܬܠܗ ܒܐܘܨܪܐ $\frac{١}{٢}$ ܕܕܝܢܪܐ ܡܢܐ ܦܘܫܚܐ ܕܙܘ̈ܙܐ ܕܡܗܝܢܐ ܠܙܘ̈ܙܐ ܕܐܘܨܪܐ ؟ ܡܢܐ ܦܘܫܚܐ ܕܙܘ̈ܙܐ ܕܐܘܨܪܐ ܠܙܘ̈ܙܐ ܕܡܗܝܢܐ ؟

ܦܬܪܐ : $\frac{١}{٢}$ ܕܕܝܢܪܐ = ٥٠٠ ܦܠܣ̈ܐ ܙܘ̈ܙܐ ܕܐܘܨܪܐ

٣٠ ܙܘ̈ܙܐ = ٣٠ × ٥٠ = ١٥٠٠ ܦܠܣ̈ܐ ܙܘ̈ܙܐ ܕܡܗܝܢܐ

$$\text{ܦܘܫܚܐ} = \frac{\text{ܙܘ̈ܙܐ ܕܡܗܝܢܐ}}{\text{ܙܘ̈ܙܐ ܕܐܘܨܪܐ}} = \frac{\cancel{١٥٠٠}^{٣}}{\cancel{٥٠٠}_{١}} = \frac{٣}{١}$$

$$\text{ܦܘܫܚܐ} = \frac{\text{ܙܘ̈ܙܐ ܕܐܘܨܪܐ}}{\text{ܙܘ̈ܙܐ ܕܡܗܝܢܐ}} = \frac{\cancel{٥٠٠}^{١}}{\cancel{١٥٠٠}_{٣}} = \frac{١}{٣}$$

ܡܬܘܦܩܐ ( ٩ ) :

ܙܒܢܠܗ ܢܪܓܝܣ ١١ ܡܒܗܪܐ ܡܢ ܦܪܚܐ ܘܙܒܢܠܗ ܡܢܗ ٢٧٠ ܗܘ ܡܢ ܦܪܚ̈ܐ

ܒܢܝܗ̇ ، ܡܢܘ ܦܣܡܐ ܒܝܢ ܡܘܙܓܐ ܕܦܪܙܠܐ ܕܘܝܢܠܗ ܫܚܝܢܐ ܘܡܘܙܓܐ ܕܦܪܙܠܐ ܕܘܝܢܠܗ ܩܪܝܪܐ ؟

ܫܪܝܐ : ܡܝܬܪܐ = ١٠٠ ܣܡ

١١ × ١٠٠ = ١١٠٠ ܣܡ ܡܘܙܓܐ ܕܦܪܙܠܐ ܕܘܝܢܠܗ ܫܚܝܢܐ

$$\text{ܦܣܡܐ} = \frac{\text{ܡܘܙܓܐ ܕܦܪܙܠܐ ܕܫܚܝܢܐ}}{\text{ܡܘܙܓܐ ܕܦܪܙܠܐ ܕܩܪܝܪܐ}} = \frac{١١٠٠}{٢٧٠} = \frac{١١٠}{٢٧}$$

ܡܬܠܐ ( ١٠ ) : ܡܫܝܚܘܬܗ ܕܐܘܪܚܐ ١٧٥٠ ܡܝܬܪܐ ܒܡܫܚܬܐ ܥܠ ܐܪܥܐ ܘܡܫܝܚܘܬܗ ܡܘܙܓܐ ٣،٥ ܣܡ ܒܨܘܪܬܐ ܥܠ ܦܪܟܬܐ ܕܡܘܙܐ . ܡܢܘ ܦܣܡܐ ܕܡܘܙܓܐ ܕܡܫܝܚܘܬܗ ܒܐܪܥܐ ܘܡܘܙܓܐ ܕܡܫܝܚܘܬܗ ܒܨܘܪܬܐ ܥܠ ܦܪܟܬܐ ؟

ܫܪܝܐ : ١ ܣܡ = ١٠٠٠ ܡܝܬܪܐ

٣،٥ × ١٠٠٠ = ٣٥٠٠ ܡܝܬܪܐ ܡܘܙܓܐ ܕܡܫܝܚܘܬܗ ܥܠ ܦܪܟܬܐ

$$\text{ܦܣܡܐ} = \frac{\text{ܡܘܙܓܐ ܕܡܫܝܚܘܬܗ ܒܐܪܥܐ}}{\text{ܡܘܙܓܐ ܕܡܫܝܚܘܬܗ ܒܦܪܟܬܐ}} = \frac{١٧٥٠}{٣٥٠٠} = \frac{١}{٢}$$

ܒܚܘܪܐ ܗܘܐ ܕܦܣܡܐ ܒܝܢ ܡܫܘܚܬܐ ܝܠܗ̇ ܦܣܡܐ ܒܝܢ ܗܠܝܢ ܡܢܝܢܐ ܕܡܚܘܐ ܠܡܫܘܚܬܐ ܒܚܕ ܫܘܚܬܐ ܒܢܝܗ̇ ، ܐܦ ܡܬܠܐ ܗܡܢܝܢܐ ܒܡܫܚܠܦܐ ܠܡܫܘܚܬܐ ܠܡܫܚܬܐ ܘܒܡܬܠܐ ܗܡܢܝܢܐ ܒܡܫܚܠܦܐ ܠܡܘܙܓܐ ܠܡܝܬܪܐ ܘܒܡܬܠܐ ܕܒܬܪܐ ܒܡܫܚܠܦܐ ܠܡܘܙܓܐ ܠܡܝܬܪܐ .

ܕܘܪܫܐ ( ٥ ـ ٢ )

١ ـ ܐܫܟܚ ܠܦܣܡܐ ܒܝܢ ܗܠܝܢ ܡܫܘܚܬܐ ܕܐܬܝܢ :

( ܐ ) ٤ ܕܣܡ ، ٣ ܡܝܬܪܐ

( ܒ ) ٥ ܟܓ ، ١ ܛܘܢܐ ( ܛܘܢܐ = ١٠٠٠ ܟܝܠܘܓܪܡ )

٢ ـ ܗܘܪܘܒܐ ܕܦܪܘܣܬܐ ٥٠ ܣܡ ܒܦܬܝܘܬܐ ، ܘܗܘܪܘܒܐ ܕܦܪܘܣܬܐ ܐܚܪܬܐ ٦٠ ܣܡ ܒܦܬܝܘܬܐ ، ܡܢܘ ܦܣܡܐ ܒܝܢ ܗܘܪܘܒܐ ܕܦܪܘܣܬܐ ܩܕܡܝܬܐ ܘܬܪܝܢܝܬܐ ؟

٣ . ܟܘܡܪܐ ܕܐܫܘܪܝܐ ١٥ ܙܘܙܐ ܘܟܘܡܪܐ ܕܢܘܪܡ ٢٠ ܙܘܙܐ ، ܟܡܐ ܦܫܐ
ܕܟܘܡܪܐ ܕܐܫܘܪܝܐ ܠܟܘܡܪܐ ܕܢܘܪܡ ؟ ܐܢܐ ܒܫܠܝܐ ܐܘܐ ܦܫܐ
ܒܗܕ ١٠ ܙܘܙܐ ؟

٤ . ܗܕܐ ܡܕܪܫܬܐ ܣܘܪܝܬܐ ܕܐܠܦܐ ܡܢܝܢܐ ١٥ ܡܠܦ ܘܣܘܪܝܬܐ ܕܐܠܦܐ ܐܚܪܢܐ
٦ ܗܡ ܟܡܐ ܦܫܐ :

ܐ . ܣܘܪܝܬܐ ܕܐܠܦܐ ܕܡܕܪܫܬܐ ܡܢܝܢܐ ܠܣܘܪܝܬܐ ܕܐܠܦܐ ܐܚܪܢܐ ؟

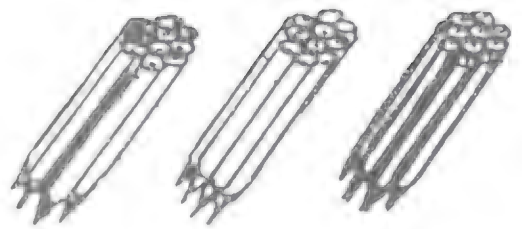
ܒ . ܥܪܒܝܘܬܐ ܕܡܕܪܫܬܐ ܡܢܝܢܐ ܠܥܪܒܝܘܬܐ ܕܡܕܪܫܬܐ ܐܚܪܢܐ ؟

٥ . ܣܘܪܝܬܐ ܒܝܢ ܗܕܐ ܡܕܝܢܬܐ ٢٤٠ ܟܡ ، ܡܫܬܠܦܐ ܚܘܫܒܐ ٨٠ ܟܡ ܡܢܗ .
ܟܡܐ ܦܫܐ ܕܟܡܐ ܦܫܠܗ ܡܢ ܐܘܪܚܐ ܠܟܡܐ ܡܫܬܠܦܐ ܡܢܗ ؟

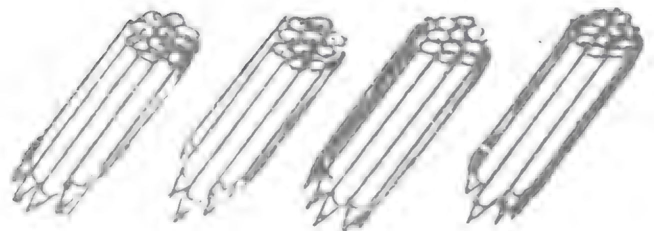
٦ . ܦܫܐ ܕܡܝܢܐ ܕܫܢܘܢ ܠܡܝܢܐ ܕܫܢܬܐ ܒܝܢ ܗܕܐ $\frac{٣}{٢}$ . ܐܢܫ
ܦܫܐ ܒܝܢ ܡܝܢܐ ܕܫܢܬܐ ܠܡܝܢܐ ܕܐܠܡܝܕܐ ܒܗܘܐ ܗܕܐ .



## ٥ - ٢ ܦܣܡܘܬܐ



ܩܢܝܐ ܕܟܐܘܡܐ



ܩܢܝܐ ܕܡܨܒܥܐ

ܡܘܦܬܐ ( ١ ) : ܐܝܬ ܠܗ ܟܐܘܡܐ ٣٠ ܩܢܝܐ ܘܠܗ ܡܨܒܥܐ ٤٠ ܩܢܝܐ ،
ܡܐ ܝܠܗ ܦܣܡܬܐ ܕܩܢܝܐ ܕܟܐܘܡܐ ܠܩܢܝܐ ܕܡܨܒܥܐ ؟

ܚܠܐ : $\frac{\text{ܩܢܝܐ ܕܟܐܘܡܐ}}{\text{ܩܢܝܐ ܕܡܨܒܥܐ}} = \frac{٣٠}{٤٠} = \frac{٣}{٤}$

ܡܕܝܢ $\frac{٣٠}{٤٠} = \frac{٣}{٤}$ ( ܒܬܪܨܬܐ )

ܗܢܘ ܕܝܢ $\frac{٣٠}{٤٠}$ ܘ $\frac{٣}{٤}$ ܗܢܝ ܬܪܝܢ ܠܚܕ ܦܣܡܐ

ܡܘܦܬܐ ( ٢ ) : ܐܢ ܗܘܐ ܛܝܡܐ ٤ ܩܢܝܐ ܕܕܝܘܬܐ ٨ ܕܝܢܪܐ
ܘܛܝܡܐ ܕ ٧ ܩܢܝܐ ܕܕܝܘܬܐ ١٤ ܕܝܢܪܐ ܗܘܐ ܚܙܝܐ ܕ :

$\frac{\text{ܡܢܝܢܐ ܕܩܢܝܐ ܒܙܒܢܘܬܐ ܩܕܡܝܬܐ}}{\text{ܡܢܝܢܐ ܕܩܢܝܐ ܒܙܒܢܘܬܐ ܬܪܝܢܝܬܐ}} = \frac{٤}{٧}$

$\frac{\text{ܛܝܡܐ ܕܩܢܝܐ ܒܙܒܢܘܬܐ ܩܕܡܝܬܐ}}{\text{ܛܝܡܐ ܕܩܢܝܐ ܒܙܒܢܘܬܐ ܬܪܝܢܝܬܐ}} = \frac{٨}{١٤} = \frac{٤}{٧}$

ܡܕܝܢ $\frac{\text{ܡܢܝܢܐ ܕܩܢܝܐ ܒܙܒܢܘܬܐ ܩܕܡܝܬܐ}}{\text{ܡܢܝܢܐ ܕܩܢܝܐ ܒܙܒܢܘܬܐ ܬܪܝܢܝܬܐ}} = \frac{\text{ܛܝܡܐ ܕܩܢܝܐ ܒܙܒܢܘܬܐ ܩܕܡܝܬܐ}}{\text{ܛܝܡܐ ܕܩܢܝܐ ܒܙܒܢܘܬܐ ܬܪܝܢܝܬܐ}}$

ܡܕܝܢ : $\frac{٤}{٧} = \frac{٨}{١٤}$ ܘܗܘܐ ܡܐ ܕܡܫܚܠܦ ܒܦܣܡܘܬܐ .

## ܦܣܩܘܬܐ ܕܠܗ ܫܘܝܘܬܐ ܕܬܪܝܢ ܦܣܩܐ

$$\frac{٦}{٨} = \frac{٣}{٤}$$

ܗ . ܕ : $\frac{٦}{٨}$ ، $\frac{٣}{٤}$ ܡܬܩܪܝܢ ܦܣܩܐ ܒܗܝ

$$\frac{٦}{٨} = \frac{٣}{٤}$$

ܘܗܟܢܐ : $\frac{١٥}{٢٠} = \frac{٣}{٤}$ ܘܗܘܐ ܦܣܩܐ ܐܚܪܢܐ

ܘܟܠ ܕܗܘܐ : $\frac{٣}{٤} = \frac{٦}{٨} = \frac{١٥}{٢٠}$

## ܫܘܝܘܬܐ ܕܬܪܝܢ ܦܣܩܐ ܕܠܗ ܐܚܝܢܘܬܐ ܦܣܩܢܝܬܐ

ܡܘܦܬܐ (٣)

$$\frac{١}{٢} = \frac{٢}{٤} = \frac{٣}{٦} = \frac{٤}{٨} = \frac{٥}{١٠} = .....$$

ܗܢܐ ܐܚܝܢܘܬܐ ܦܣܩܢܝܬܐ ܡܨܝܐ ܕܬܬܟܬܒ ܒܨܘܪܬܐ

١ : ٢ = ٢ : ٤ = ٣ : ٦ = ٤ : ٨ = ٥ : ١٠ = ------------

ܡܘܦܬܐ (٤) : ܦܣܩܐ $\frac{٣}{٧}$ ܘܦܣܩܐ $\frac{٦}{١٤}$ ܫܘܝܢ ܗܢܐ ܒܗܝ ܕܬܪܝܢ ܫܘܝܢ ܠܗܘܢ ܦܣܩܐ ܗܢܐ . ܟܠ ܕܗܘܐ ܐܬܪܝܢ ܕܬܚܝܬܝܢ ܐܝܟ ܦܣܩܘܬܐ .

$\frac{٣}{٧} = \frac{٦}{١٤}$ ܡܨܝܐ ܕܬܬܟܬܒ ܠܗܢܐ ܦܣܩܐ ܒܨܘܪܬܐ ٣ : ٧ = ٦ : ١٤

ܡܬܩܪܝܢ ܠܡܢܝܢܐ ٣ , ١٤ ܣܘܦܐ ܕܦܣܩܐ .

ܘܡܬܩܪܝܢ ܠܡܢܝܢܐ ٧, ٦ ܡܨܥܝܐ ܕܦܣܩܐ

ܛܘܦܣܐ (٥) : ܚܙܝ ܠܦܣܩܬܐ ٤/٧ = ٨/١٤

ܚܙܝ ܠܫܘܦܐ ܕܦܣܩܬܐ ܐܢܐ ٤ , ١٤

ܘܡܟܝܟܐ ܕܦܣܩܬܐ ܐܢܐ ٧ ، ٨

ܘܚܙܘܐ ܦܠܛܐ ܕܡܘܦܩܐ ܕܫܘܦܐ = ٤ × ١٤ = ٥٦

ܘܦܠܛܐ ܕܡܘܦܩܐ ܕܡܟܝܟܐ = ٧ × ٨ = ٥٦

ܘܗܕܐ ܗܕܟܐ : ١/٢ = ٤/٨

ܦܠܛܐ ܕܡܘܦܩܐ ܕܫܘܦܐ ١ × ٨ = ٨

ܦܠܛܐ ܕܡܘܦܩܐ ܕܡܟܝܟܐ ٢ × ٤ = ٨

ܘܗܕܐ ܗܕܟܐ : ٥/١٥ = ٣/٩

ܦܠܛܐ ܕܡܘܦܩܐ ܕܫܘܦܐ ٥ × ٩ = ٤٥

ܦܠܛܐ ܕܡܘܦܩܐ ܕܡܟܝܟܐ ١٥ × ٣ = ٤٥

ܒܠܥܕ ܗܘܝܢ ܡܢ ܗܢܐ ܕܝܕܥܝܬܘܢ :

| ܐܢ ܟܠ ܦܣܩܬܐ ܦܠܛܐ ܕܡܘܦܩܐ ܕܫܘܦܐ ܫܘܝܐ ܠܦܠܛܐ ܕܡܘܦܩܐ ܕܡܟܝ |
| --- |

ܛܘܦܣܐ ( ٦ ) : ܦܣܩܬܐ ܕܡܢܝܢܐ ܕܒܢܬܐ ، ܡܢܝܢܐ ܕܥܠܝܡܐ ٥/٧ ܝܠܗ، ܡܢܝܢܐ
ܕܥܠܝܡܐ ܗܘܐ ١٠ ܕܒܢܝܐ ، ܟܡܐ ܐܢܐ ܡܢܝܢܐ ܕܒܢܬܐ

ܟܕܐ : (ܡܢܝܢܐ ܕܒܢܬܐ) / (ܡܢܝܢܐ ܕܥܠܝܡܐ) = ٥/٧

ܥܒܘܕ ܪܫܘܡ ܠܡܢܝܢܐ ܕܒܢܬܐ ܒܐܬܘܬܐ ܣ

ܒܗܘܐ ܦܣܩܬܐ ܣ/١٤ ܫܘܝܐ ܐܚܪܬܐ ܠܦܣܩܬܐ ٥/٧

ܒܗܘܐ ܦܣܩܬܐ : ٥/٧ = ܣ/١٤

ܣ × ٧ = ٥ × ١٤ ( ܒܗܝ ܦܠܛܐ ܕܡܘܦܩܐ ܕܫܘܦܐ - ܦܠܛܐ ܕܡܘܦܩܐ ܕܡܟܝܟܐ )

ܣ × ٧ = ٧٠

ܐܝܢܐ ܡܢܝܢܐ ܕܡܬܚܫܠܗ ܥܡ ܡܢܝܢܐ ٧ ܕܗܘܐ ܦܠܛܐ ٧٠ ؟

ܦܘܢܝܐ :

٧٠ ÷ ٧ = ١٠ ( ܒܗܝ ܕܦܠܓܘܬܐ ܘܡܢܝܢܐ ܗܘܦܟܐ ܕܡܣܓܝܢܘܬܐ )

ܣ = ١٠

ܘܡܨܝ ܕܡܬܚܫܒ ܠܫܘܝܘܬܐ ܒܫܘܝܘܬܐ ܥܠ ܐܘܪܚܐ ܕܡܣܓܝܢܘܬܐ ܠܡܬܚܫܒܬܐ ܕܫܘܝܐ ܐܝܟ ܠܗܠܝܢ .

ܡܬܠ ܦܘܫܩܐ : $\frac{٥}{٧} = \frac{ܣ}{١٤}$ ܒܐܘܪܚܐ ܕܡܣܓܠ ܥܡ ܡܢܝܢܐ ܕܡܢܝܢܐ ܘܡܣܓܝܐ ܕܡܬܒܥܐ $\frac{٥}{٧}$ ܒܡܢܝܢܐ ܘܗܘܐ ܠܗ ܦܠܛܐ $\frac{ܣ}{١٤}$

$$\frac{٥}{٧} = \frac{٥ \times \square}{٧ \times \square} = \frac{ܣ}{١٤}$$

ܘܡܣܘܒܪ : ٧ × $\square$ = ١٤

ܡܢܝܢܐ ܕܡܣܓܠ ܥܡ ܡܢܝܢܐ ܒܡܢܝܢܐ ܘܡܣܓܝܐ ܗܘ ( ٢ )

ܒܗܘܐ ܣ = ٥ × ٢ = ١٠

ܘܦܬܐ ܡܣܓܝܢܘܬܐ ܗܕܐ ܐܘܪܚܐ ܒܡܫܟܚܢܘܬܐ ܕܫܘܝܘܬܐ ܒܡܘܢܐܐ .

* ______________________________ *

## ܕܘܪܫܐ ( ٥ ـ ٣ )

١ ـ ܐܫܟܚ ܠܫܘܝܘܬܐ ܒܟܠ ܦܣܩܐ ܕܠܬܚܬ :

$$\frac{١}{٢} = \frac{٣}{ܣ} \qquad \frac{٢}{٣} = \frac{ܣ}{١٥} \qquad \frac{ܣ}{١٢} = \frac{١٥}{٣٦}$$

$$\frac{١٠}{ܣ} = \frac{٢٠}{٥٠} \qquad \frac{٥}{٦} = \frac{ܣ}{١٨} \qquad \frac{٣}{٤} = \frac{٦}{ܣ}$$

$$\frac{٨}{٤٠} = \frac{ܣ}{٢٥} \qquad \frac{١٥}{٧٥} = \frac{٤}{ܣ}$$

٢ . ܘܝܠܗ ܚܕ ܦܬܠܐ ܡܢ ܫܘܬܦܘܬܐ ٢٤ ܡܢܘܬܐ ܡܢ ܦܝܕܐ ܕܗܘܝܐ ٤٨ ܕܝܢܪܐ ، ܟܡܐ ܡܢܘܬܐ ܒܥܝܢ ܦܬܠܐ ܡܢ ܦܝܕܐ ܒܢܗܘ ܕܗܘܝܐ ٧٢ ܕܝܢܪܐ ؟

ܫܪܝܐ :

ܦܝܕܐ ܩܕܡܝܐ / ܦܝܕܐ ܬܪܝܢܐ = ܡܢܝܢܐ ܕܡܢܘܬܐ ܕܫܘܬܦܘܬܐ ܩܕܡܝܬܐ / ܡܢܝܢܐ ܕܡܢܘܬܐ ܕܫܘܬܦܘܬܐ ܬܪܝܢܝܬܐ

٤٨ / ٧٢ = ٢٤ / ܦ ( ܦܫܘܩ ܠܫܪܝܐ )

٣ . ܦܫܡܐ ܕܚܘܕܪܐ ܕܥܠܡܐ ܠܚܘܕܪܐ ܕܟܪܟܐ ٢/٣ ܐܝ ، ܚܘܕܪܐ ܕܥܠܡܐ ܝܗܘܐ ١٢٠ ܟܡ ، ܟܡܐ ܝܠܗ ܚܘܕܪܐ ܕܟܪܟܐ ؟

٤ . ܐܓܪܐ ܕܚܘܫܒܢܐ ܕ ٤٥ ܝܘܡܢܐ ܕܦܠܚܘܬܐ ܕܦܘܪܥܢܘܬܐ ܡܢ ܥܒܕܐ ܠܦܘܢܐ ٢٧٠ ܕܝܢܪܐ ، ܟܡܐ ܝܠܗ ܦܝܫܐ ܕܐܢܝ ܫܠܘܡܐ ܐܓܪܐ ܕܦܘܪܥܢܐ ܐܝ ، ܡܢܝܢܐ ܕܝܘܡܢܐ ܗܘܐ ٣٦ .

٥ . ܐܢܐ ܡܕܪܫܬܐ ܚܕܝܬܐ ܦܫܡܐ ܕܒܢܬܐ ܠܒܢܘܢܐ ٤/٧ ܐܝ ، ܡܢܝܢܐ ܕܒܢܘܢܐ ٢٨٠ ، ܟܡܐ ܝܠܗ ܡܢܝܢܐ ܕܒܢܬܐ ؟

٦ . ܐܢ ١٥ ܡܢܘܬܐ ܡܢ ܦܝܫܐ ܩܠܝܠ ܠܟܬܒܬܐ ٥ ܫܥܘܬܐ ، ܟܡܐ ܫܥܘܬܐ ܒܥܝܐ ܚܕ ܟܬܒܬܐ ܒܢܗܘ ܡܢ ٢١ ܡܢܘܬܐ ؟

٧ . ܪܘܚܐ ܡܘܬܒܐ ١٦ ܠܝܬܪܐ ܕܒܢܙܝܢ ܥܠ ١٠٠ ܟܝܠܘܡܝܬܪܐ ، ܐܟܡܐ ܠܚܘܕܪܐ ܕܡܨܝܐ ܠܗ ܪܘܚܐ ܒܡܦܠܚܬܐ ܕ ٢٠ ܠܝܬܪܐ ܕܒܢܙܝܢ .

٨ . ܫܩܠ ܦܠܚܐ ٧٢ ܕܝܢܪܐ ܓܘ ٣ ܫܒܘܥܐ ، ܟܡܐ ܕܝܢܪܐ ܒܫܩܠ ܓܘ ١٢ ܫܒܘܥܐ ؟

٩ . ܦܠܓܐ ܡܕܪܫܬܐ ٣٦٠٠ ܣܦܪܐ ܕܒܥܐ ܠܗ ܠܡܕܪܫܬܐ ܘܡܢܝܢܗ ٣٠٠ ܬܠܡܝܕܐ ، ܟܡܐ ܝܠܗ ܡܢܝܢܐ ܕܣܦܪܐ ܕܦܠܓܐ ܡܕܪܫܬܐ ܐܚܪܬܐ ܐܝ ، ܡܢܝܢܐ ܕܬܠܡܝܕܐ ܝܠܗ ٤٥٠ ܬܠܡܝܕܐ ؟
ܟܕ ܗܕܡܘܬܐ ܡܕܪܫܬܐ ܦܠܓܐ ܠܣܦܪܐ ܒܦܫܡܐ ܒܢܗܘ .

## ٥ . ٣ ܡܫܘܚܬܐ ܕܪܘܫܡܐ

ܚܘܦܛܐ : ܨܘܪܬܐ ܐܘܪܟܗ ٤ ܣܡ ܘܦܬܝܘܬܗ ٣ ܣܡ ܒܒܢܝܢܐ ܕܪܒܘܝܚܬܗ ܕܦܝܫ ܐܘܪܟܗ ٨ ܣܡ ، ܟܡܐ ܗܘܝܐ ܦܬܝܘܬܗ ؟

ܬܘܦܫܬܐ ( ١ ) : ܨܘܪܬܐ ܐܘܪܟܗ ٢٠ ܣܡ ܘܦܬܝܘܬܗ ١٦ ܣܡ ܦܫܠܗ ܡܙܘܥܪܬܐ ܘܦܝܫܠܗ ܐܘܪܟܗ ٥ ܣܡ ، ܟܡܐ ܝܠܗ ܦܬܝܘܬܗ ؟

ܫܪܝܐ :

$$\frac{\text{ܦܬܝܘܬܐ ܕܨܘܪܬܐ ܩܕܡ ܙܘܥܪܬܐ}}{\text{ܦܬܝܘܬܐ ܕܨܘܪܬܐ ܒܬܪ ܙܘܥܪܬܐ}} = \frac{\text{ܐܘܪܟܐ ܕܨܘܪܬܐ ܩܕܡ ܙܘܥܪܬܐ}}{\text{ܐܘܪܟܐ ܕܨܘܪܬܐ ܒܬܪ ܙܘܥܪܬܐ}}$$

$$\frac{١٦}{\text{ܗ}} = \frac{٢٠}{٥٠}$$

$$١٦ \times ٥ = \text{ܗ} \times ٢٠$$

$$\text{ܗ} = \frac{١٦ \times ٥}{٢٠} = ٤ \text{ ܣܡ ܦܬܝܘܬܐ ܒܬܪ ܙܘܥܪܬܐ}$$

ܐܢ ܒܒܢܝܢܐ ܕܪܘܫܡܐ ܒܝܬ ܝܠܦܢܐ ܕܒܘܪܬܐ ܬܪܒܝܥܬܐ ܘܗܠܗ ܡܫܘܚܬܐ ܕܐܦܝܢܐ ܐܘܪܟܗ ١٨ ܡ ܘܦܬܝܘܬܗ ٩ ܡ ، ܐܢܐ ܐܝܟ ܕܪܫܡܐ ܡܫܘܚܬܐ ܒܪܫܐ ܐܘܪܟܐ ܠܗ ܒܪܫܡܐ ؟

ܕܠܐ ܦܘܫܩܐ ، ܦܬܐ ܕܒܪܫܐ ܠܐ ܝܕܥܢܐ ܠܪܘܫܡܐ ܒܪܫܐ ܪܘܚܫܐ ، ܒܥܘܕ ܐܢܐ ܘܠܐ ܕܡܫܚܝܢ ܒܪܫܡܐ ܕܨܘܪܬܐ ܡܙܘܥܪܬܐ ܠܒܝܬ ܝܠܦܢܐ .

ܗܢܐ ܬܘܦܫܬܐ : ١٨ ܡܬܪܐ ( ܐܘܪܟܐ ܩܪܝܬܐ ܕܒܝܬ ܝܠܦܢܐ ) ܗܘܝܢ ܕܡܫܘܚܬܗ ܒܦܬܝܬܐ ܒܪܫܐ ܐܘܪܟܗ ٦ ܣܡ .

ܦܣܩܐ ܒܝܢ ܪܘܫܡܐ ܘܐܘܪܟܐ ܩܪܝܬܐ

$$\frac{٦ \text{ ܣܡ}}{١٨ \text{ ܡ}} = \frac{٦ \text{ ܣܡ}}{١٨ \times ١٠٠ \text{ ܣܡ}} = \frac{١}{٣٠٠}$$

ܟܠ ܣܢܬܝܡܝܛܪܐ ܥܠ ܪܫܡܐ ܡܚܘܐ ٣٠٠ ܣܢܬܝܡܝܛܪܐ ܡܢ ܐܘܪܟܐ ܫܪܝܪܐ . ܗܕܐ ܕܗܘܐ ܪܫܡܐ ܕܡܚܘܝܢܐ ܡܫܘܚܬܐ ܠܒܝܬ ܬܪܬܝܢ ܗܠܝܢ ܕܗܘܐ ܦܬܝܘܬܗ ٣ ܣܡ ܕܗܘܝܐ ܦܚܡܐ ܒܝܢ ܦܬܝܘܬܐ ܓܘ ܪܫܡܐ ܘܦܬܝܘܬܐ ܫܪܝܪܬܐ .

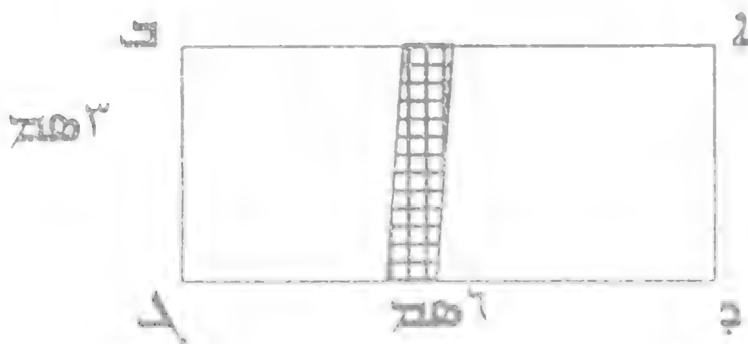
٣ ܣܡ / ٩ ܡ = ٣ / ٩٠٠ = ١ / ٣٠٠

ܘܝܠܗ ܦܚܡܐ ܒܝܢܗ .

ܦܬܝܘܬܐ ܡܚܝܕܬܐ ܐ ܒ ܓ ܕ

ܡܚܘܐ ܒܝܢ ܬܪܬܝܢ ܕܦܬܝܘܬܐ

ܦܘܚܡܐ ܕܡܫܘܚܬܐ ١ / ٣٠٠




ܟܠ ܣܢܬܝܡܝܛܪܐ ܡܢ ܐܘܪܟܐ ܕܐܗܐ ܡܚܘܝܢܐ ܡܚܘܐ ٣٠٠ ܣܡ ( ٣ ܡܝܛܪܐ ) ܡܢ ܐܘܪܟܐ ܕܒܝܬ ܬܪܬܝܢ .

ܘܐܗܐ ܦܚܡܐ ܡܕܝܠܗ ܡܫܘܚܬܐ ܕܪܫܡܐ .

| ܡܫܘܚܬܐ ܕܪܫܡܐ ܝܠܗ ܦܚܡܐ ܒܝܢ ܐܘܪܟܐ ܓܘ ܪܫܡܐ ܘܐܘܪܟܐ ܫܪܝܪܐ . |
| --- |

ܠܘܚܐ ( ٢ ) :

ܐܘܪܟܐ ܕܐܝܠܢܐ ١٤ ܡ . ܦܝܫܠܗ ܪܫܝܡܬܐ ܥܠ ܘܪܩܐ ܒܡܫܘܚܬܐ ܕܪܫܡܐ ١ : ٧٠ ، ܟܡܐ ܝܠܗ ܐܘܪܟܗ ܥܠ ܪܫܡܐ ؟

ܫܪܝܐ :

١٤ × ١٠٠ = ١٤٠٠ ܣܡ

ܡܫܘܚܬܐ ܕܪܫܡܐ = ܐܘܪܟܐ ܓܘ ܪܫܡܐ / ܐܘܪܟܐ ܫܪܝܪܐ

١ / ٧٠ = ܣ / ١٤٠٠

٧٠ ܣ = ١٤٠٠

ܣ = ١٤٠٠ / ٧٠

ܣ = ٢٠ ܣܡ ܢܘܪܓܐ ܕܐܝܬܝܗ̇ ܥܠ ܪܘܫܡܐ

ܡܬܠܐ : ܒܗܐ ܨܘܪܬܐ ܡܚܘܝܢܐ ܠܐܬܪܘܬܐ ܕܝܘܕܘܬܐ ܘܡܕܝܢܬܐ ܘܢܗܪܘܬܐ ܘܓܙܪܬܐ . ܒܐܡܨܥܘܬܐ ܕܗܕܐ ܡܬܠܐ ܕܚܘܝܕܐ ܒܟܝܠܐ ܒܡܫܘܚܬܐ $\frac{1}{1200000}$ ܘܐܢܐ ܫܘܐܠܐ ܗܘ ܡܬܠܐ ܦܘܪܫܢܐ ܕܟܝܠܐ ܦܫܛܐ ܕܪܘܫܡܐ ܡܢ ܗܕܐ ܒܘܨܘܪܬܐ ܥܠ ܡܬܠܐ ܘܪܘܫܡܐ

ܡܢܛܝܢ ܥܠ ܐܪܥܐ =

$\frac{1}{1200000}$ ܐܝ ܒܟܠܠܗ

ܢܘܪܓܐ ܡܢ ܗܕܐ ܡܚܘܝܢܬܐ ܥܠ ܡܬܠܐ

$\frac{1}{12\,000\,000}$

ܘܐܢܐ ܗܘ ܕܟܝܠܗ ٦ ܣܡ ، ܟܡܐ ܪܘܚܩܘܬܐ ܐܪܥܢܝܬܐ ܥܠ ܐܪܥܐ ؟

$$\text{ܡܫܘܚܬܐ ܕܪܘܫܡܐ} = \frac{\text{ܢܘܪܓܐ ܥܠ ܪܘܫܡܐ}}{\text{ܢܘܪܓܐ ܐܪܥܢܝܐ}} = \frac{1}{12000000}$$

$$\frac{1}{12000000} = \frac{6}{\text{ܣ}}$$

ܣ = ٦ × ١٢٠٠٠٠٠٠

ܣ = ٧٢٠٠٠٠٠٠ ܣܡ

ܟܕ ( ١ ) ܟܝܠܘܡܝܛܪܐ = ١٠٠٠٠٠ ܣܡ

٧٢٠٠٠٠٠٠ ÷ ١٠٠٠٠٠ = ٧٢٠ ܟܡ ܪܘܚܩܘܬܐ ܐܪܥܢܝܬܐ ܥܠ ܐܪܥܐ .

ܬܘܪܓܡܐ ( ٣ ) : ܐܝ ܪܘܚܩܘܬܐ ܒܝܢ ܬܪܬܝܢ ܡܕܝܢܬܐ ܥܠ ܡܬܠܐ ܗܘܐ ٣ ܣܡ ܘܪܘܚܩܘܬܐ ܐܪܥܢܝܬܐ ܒܝܢܬܝܗܘܢ ٦٠ ܟܡ ، ܟܡܐ ܡܫܘܚܬܐ ܕܪܘܫܡܐ ܕܟܝܠܗ ܐܝܬܝܗ̇ ܗܘ ܡܬܠܐ ؟

ܦܘܫܩܐ :

١ ܟܡ = ١٠٠٠٠٠ ܣܡ

٦٠ × ١٠٠٠٠٠ = ٦٠٠٠٠٠٠ ܣܡ ܢܘܪܓܐ ܐܪܥܢܝܐ

$$\text{ܡܫܘܚܬܐ ܕܪܘܫܡܐ} = \frac{\text{ܢܘܪܓܐ ܥܠ ܪܘܫܡܐ}}{\text{ܢܘܪܓܐ ܐܪܥܢܝܐ}} = \frac{3}{6000000}$$

$$= \frac{1}{2000000}$$

ܦܘܫܩܐ (٤) : ܐܢ ܪܘܚܩܘܬܐ ܒܝܢ ܩܡܫܘܢܐ ܘܒܓܕܕ ٣٢ ܟܡ ، ܟܡܐ
ܗܘܐ ܪܘܚܩܐ ܒܝܢ ܐܢܝܢ ܡܕܝܢ̈ܬܐ ܥܠ ܡܦܐ ܪܫܝܡܬܐ ܒܡܫܘܚܬܐ
$\frac{١}{١٠٠٠٠٠٠٠}$ ؟

ܫܪܝܐ :

٣٢ ܟܡ = ٣٢ × ١٠٠٠٠٠ = ٣٢٠٠٠٠٠ ܣܡ

$\frac{١}{١٠٠٠٠٠٠٠} = \frac{\text{ܣ}}{٣٢٠٠٠٠٠}$ ، ١٠٠٠٠٠٠٠ ܣ = ٣٢٠٠٠٠٠

١٠ ܣ = ٣٢ ، ܣ = ٣٫٢ ܡܡ ܪܘܚܩܘܬܐ ܒܝܢ ܬܪܬܝܗܝܢ ܡܕܝܢ̈ܬܐ ܥܠ ܡܦܐ .

ܦܘܫܩܐ (٥) : ܪܘܚܩܐ ܒܝܢ ܒܓܕܕ ܘܒܨܪܐ ܥܠ ܡܦܐ ܕܪܫܝܡܬܐ ܕܐܝܟܐ
ܪܫܝܡܐ ܒܡܫܘܚܬܐ $\frac{١}{١٤٠٠٠٠٠٠}$ ܗܘܐ ٤ ܣܡ ، ܟܡܐ ܐܝܬܘ
ܙܒܢܐ ܕܢܣܩ ܪܕܝܐ ܕܡܗܠܟܐ ܠܗܘܐ ܪܘܚܩܐ ܐܢ ܪܕܝܐ
ܒܡܪܗܘܒܘܬܐ ٨٠ ܟܡ ܒܫܥܬܐ ؟

ܫܪܝܐ :

$$\text{ܡܫܘܚܬܐ ܕܪܘܫܡܐ} = \frac{\text{ܡܘܪܟܐ ܥܠ ܪܘܫܡܐ}}{\text{ܡܘܪܟܐ ܫܪܝܪܐ}}$$

$$\frac{١}{١٤٠٠٠٠٠٠} = \frac{٤}{\text{ܣ}}$$

ܣ = ١٤٠٠٠٠٠٠ × ٤

= ٥٦٠٠٠٠٠٠ ܣܡ ܪܘܚܩܘܬܐ ܒܝܢ ܬܪܬܝܗܝܢ ܡܕܝܢ̈ܬܐ

٥٦٠٠٠٠٠٠ ÷ ١٠٠٠٠٠ = ٥٦٠ ܟܡ ܪܘܚܩܘܬܐ ܒܝܢ ܬܪܬܝܗܝܢ ܡܕܝܢ̈ܬܐ

٥٦٠ ÷ ٨٠ = ٧ ܫܥ̈ܐ ܙܒܢܐ ܕܢܣܩ ܪܕܝܐ ܕܡܗܠܟܐ ܠܗܘܐ ܪܘܚܩܐ .

## ܬܘܪܓܡܐ ( ٥ - ٤ )

١ - ܐܡܠܘܗܝ ܦܫܛܐ ܕܚܩܠܐ ܡܛܝܒܬܐ ܒܡܫܘܚܬܐ ١/١٠٠٠ ܘܒܠܠܘܗܝ ܐܘܪܟܐ ܕܝܢ ܗܕܐ ܦܬܐ ܝܗܘܐ ٤ ܣܡ ، ܟܡܐ ܝܠܗ ܐܘܪܟܐ ܫܪܝܪܐ ܕܝܢ ܗܕܝܗܘܢ ܦܬܐ ؟

٢ - ܡܬܚܐ ܕܐܪܥܐ ܡܪܒܥܬܐ ٥٠ ܡ ܘܦܬܝܘܬܗ ٣٠ ܡ ܦܫܛܠܗ ܐܟܝܡܬܐ ܥܠ ܟܪܛܣܐ ܘܗܘܐ ܠܗ ܡܬܚܗ ٥ ܣܡ ، ܟܡܐ ܝܠܗ ܦܬܝܘܬܗ ܥܠ ܟܪܛܣܐ ؟

٣ - ܐܢ ܐܘܪܚܘܬܐ ܒܝܢ ܒܓܕܕ ܘܡܘܨܠ ٣٩٠ ܟܡ ، ܟܡܐ ܐܘܪܟܐ ܒܝܢܬܝܗܘܢ ܥܠ ܦܠܓܐ ܐܟܝܡܬܐ ܒܡܫܘܚܬܐ ١/١٣٠٠٠٠٠ ؟

٤ - ܐܪܥܐ ܡܪܒܥܬܐ ١٠ ܣܡ ܘܦܬܝܘܬܗ ٨ ܣܡ ܦܫܛܠܗ ܠܗܘܢ ܥܠ ܟܪܛܣܐ ܡܬܚܗ ٤٠ ܣܡ ، ܟܡܐ ܒܗܘܐ ܦܬܝܘܬܗ ܥܠ ܟܪܛܣܐ ؟

٥ - ܦܬܚ ܐܟܝܡܬܐ ܟܠܐ ܕܦܬܐ ܒܡܫܘܚܬܐ ١/١٠٠ ܟܡܐ ܝܠܗ ܡܫܘܚܬܐ ܕܐܘܪܚܘܬܐ ܠܗܘܢ ܥܠ ܐܪܥܐ ܡܢ ܕܗܒ ܟܠܐ ܐܢ ܡܫܘܚܬܐ ܕܐܘܪܚܘܬܐ ܫܪܝܪܐ ٥ ܡ ، ٤ ܡ ؟

٦ - ܒܠܠܘܗܝ ܡܬܚܐ ܕܦܠܓܐ ܥܠ ܟܠܐ ܒܝܗܘܐ ٦ ܣܡ . ܐܢ ܡܬܚܐ ܫܪܝܪܐ ܕܦܠܓܐ ܝܗܘܐ ١٢ ܟܡ ، ܡܐ ܝܠܗ ܡܫܘܚܬܐ ܕܐܟܝܡܬܐ ܕܟܠܐ ؟

٧ - ܐܪܥܐ ܐܪܒܥܬܐ ٨٠ ܟܡ ܡܪܒܥܬܐ ، ܡܬܚܠܗ ܡܬܚܐ ܒܝܢ ܗܕܐ ܡܛܝܒܬܐ ܒܡܫܘܚܬܐ ٥ ܣܡ ، ܐܢ ܡܬܚܐ ܒܝܢ ܗܕܝܗܘܢ ܡܛܝܒܬܐ ܥܠ ܟܠܐ ܝܗܘܐ ١٠ ܣܡ ، ܡܐ ܝܠܗ ܡܫܘܚܬܐ ܕܐܟܝܡܬܐ ܕܟܠܐ ؟

٨ - ܡܩܛܥܐ ܕܐܪܥܐ ܡܫܘܚܬܐ ܕܐܣܟܡܐ ܡܪܒܥܐ ܐܘܪܟܗ ٨٠ ܣܡ ، ٦٠ ܣܡ ، ܦܬܝܘܬܗ
ܟܝܡܬܐ ܥܠ ܟܠ ܡܛܪ ܡܪܒܥܐ ܐܝܬܝܗ̇ $\frac{1}{400}$ ، ܟܡܐ ܐܝܬܝܗ̇ ܟܝܡܬܐ ܕܡܩܛܥܐ،
ܟܝܡܬܐ ܥܠ ܟܠ ܡܛܪ ؟

٩ - ܟܝܡܬܐ ܕܚܕ ܣܦܝܢܐ ܡܫܘܚܬܐ ܥܠ ܟܠ ܡܛܪ ܕܦܬܝܐ ܥܠܝܐ ܟܝܡܬܐ
ܡܪܒܥܐ $\frac{1}{8.........}$ ܐܝܬܝܗ̇ ( ٥ ، ١٦ ) ܣܡ ، ܟܡܐ ܐܝܬܝܗ̇ ܥܠܝܐ ܕܡܛܠܬܐ
ܦܠܓܘܬܐ ܕܡܩܛܥܐ ܠܗ̇ܘ ܟܝܡܬܐ ܐܢ ܦܬܝܐ ܕܡܫܘܚܬܗ̇ ٤٤٠ ܣܡ
ܡܪܒܥܐ ؟

## ٥ - ٤ ܦܠܝܓܘܬܐ ܟܝܡܝܬܐ :

* ܐܢܫ ܕܦܠܝܓܗ ١٨ ܕܩܢܝܐ ܡܢ ܚܕ ܦܪܨܘܦܐ ܡܫܘܚܬܐ ، ܗܘܝܐ ܕܟܠ ܚܕ
ܡܢܗܘܢ ܡܫܘܐ ٩ ܕܩܢܝܐ ، ܐܠܐ ܐܢܫ ܕܫܩܠ ܕܘܟܬܐ ܠܚܕ ܡܢܗܘܢ ܗܘܝܐ
ܡܢ ܬܪܝܢ ܠܦܘܬ ܚܕ ܟܝܡܬܐ ، ܡܢ ܗܕܐ ܡܬܝܕܥܐ ܐܝܟܐ ܦܠܝܓܘܬܐ ܕܦܠܝܓܘܬܐ
ܟܝܡܝܬܐ .

* ܗܢܘܢ ܡܕܡܝܐ ܐܢܫܐ ܠܡܫܘܚܬܐ ܕܐܣܟܡܐ ܠܗ ܡܢܝܢܐ ܡܫܘܚܬܐ
ܘܐܝܬܐ ܕܗܢܘܢ ܗܘܝܐ ܬܪܝܢ ܕܟܠ ܡܢܐ ܚܕ ܦܠܓܘܬ ܕܡܘܕܐ ܠܗܘܢ ، ܘܡܫܟܚܝܢ
ܐܢܫܘܬܐ ܚܕ ܦܪܨܘܦܐ ܐܘ ܝܗܒܐ ܘܦܪܐ ܡܠܝܚ ܡܢܗܘܢ ܚܕ ܡܫܘܚܬܐ ܡܢ
ܗܘܐ . ܘܦܠܝܓ ܠܡܢܝܢܐ ܠܦܘܬ ܗܘܐ ܕܡܫܘܚܬܐ ܐܝܬ ܠܗ ܫܘܘܝܘܬܐ .

* ܐܢ ܦܪܨܘܦ ܐܪܥܐ ܕܡܫܘܚܬܐ ܡܢ ܦܠܓܐ ܠܡܫܘܚܬܗܘܢ ܠܚܕ ܦܠܓܘܬܐ ، ܡܢ
ܦܠܝܓ ܠܐܪܥܐ ܡܫܘܚܬܐ ܐܢ ، ܡܠܝܢ ܦܠܓܐ ܦܠܓ ܠܦܠܓܘܬܐ ܡܫܘܚ ، ܘܐܢ
ܡܠܝܠܗ ܦܠܓܘܬܐ ܠܦܘܬ ܡܫܘܚܬܐ ܐܘ ܡܢܝܢܐ ܕܡܫܘܚܐ ܕܦܠܓܘܬܐ ܕܦܠܓ
ܠܚܕ ܦܠܓܐ ܡܢ ܦܠܝܓ ܠܐܪܥܐ ܠܦܘܬ ܚܕ ܟܝܡܬܐ .

* ܐܢ ܚܕܐ ܡܕܝܢܬܐ ܕܡܘܕܪܢܐ ܕܐܪܥܐ ܦܘܠܓܠܗ ٣٦ ܡܢܝܢܐ ܡܢ ܒܪܘܪܬܐ ܕܚܛܝܐ ܠܬܪܝܢ ܡܢܘܬܢܝܬܐ ܕܐܪܥܐ ܒܬܘܡܬܐ ، ܘܡܢܝܢܐ ܕܐܪܥܐ ܒܡܢܘܬܐ ܦܪܨܘܦܬܐ ܝܘܬܐ ٧ ، ܘܡܢܝܢܐ ܕܐܪܥܐ ܒܡܢܘܬܐ ܬܪܝܢܝܬܐ ܝܘܬܐ ٥ ، ܘܠܐ ܕܗܘܝܐ ܦܠܓܘܬܐ ܒܡܫܚܐ ٧ : ٥

ܫܘܐܠܐ ( ١ ) : ܐܢ ܒܥܝܬܝ ܕܦܠܓܝܬ ܠܡܫܘܬܐ ٣٠ ܕܝܢܪܐ ܒܝܢ ܬܪܬܝܗܝ ܘܗܘܝ ܒܡܫܚܘܬܐ ܕ ٢ : ٣ . ܟܡܐ ܝܠܗ ܦܘܠܓܐ ܕܟܠ ܚܕ ܡܢܝܗܝ ؟
ܫܪܝܐ : ܦܠܓܘܬܐ ܕܗܘܝܐ ܒܝܢ ܬܪܬܝܗܝ ܘܗܘܝ ܒܡܫܚܐ ٢ : ٣ ܗܘܟܢܐ ܝܠܗ ܟܠ ܐܝܡܐ ܕܡܩܠ ܬܪܬܝܗܝ ܬܪܝܢ ܕܝܢܪܐ ܒܬܘܡܠ ܚܕܐ ܬܠܬܐ ܕܝܢܪܐ . ܘܦܫܝܚ ܕܦܠܓܝܬ ܠܗܘܝܐ ܒܦܘܪܫܐ ܡܬܒܪܢܝܬܐ ܒܪ ܒܬܘܡܠ ܟܠ ܚܘܪܐ ܚܡܫܐ ܕܝܢܪܐ ܘܡܢܘܚ ܬܪܝܢ ܕܝܢܪܐ ܠܬܪܬܝܗܝ ܘܬܠܬܐ ܠܚܕܐ .
ܐܢ ܒܥܝܬܝ ܠܚܘܪܐ ܡܬܒܪܢܐ
ܟܠ ܕܦܪܣ ܗܘܐ ܒܫܘܚ ܕܡܨܐܬ
ܕܗܘܝ ܠܡܬܒܪܢܐ ٦ ܓܗܐ
ܚܙܝ ܠܡܬܚܙܝܢܐ :

| | | | | | |
|---|---|---|---|---|---|
| X | X | X | | X | X |
| X | X | X | | X | X |
| X | X | X | | X | X |
| X | X | X | | X | X |
| X | X | X | | X | X |
| X | X | X | | X | X |

ܦܘܠܓܐ ܕܚܕܝ      ܦܘܠܓܐ ܕܬܪܬܝܗܝ

ܦܠܓܝܬ ܠ ٣٠ ܕܝܢܪܐ ܠܚܡܫܐ ܡܢܘܬܢܝܬܐ ܓܘܐ ܒܟܠ ܚܕ ܡܢܝܗܝ ٦ ܕܝܢܪܐ . ܘܐܢ ܡܕܪܟܬ ܠܟܠ ܡܢܘܬܐ ( ܦܘܠܓܐ ) ܒܚܘܫܒܐ ܦܠܓܝܬܐ ܠܡܫܘܬܐ ܕ ٣٠ ܕܝܢܪܐ ܠ ٥ ܦܘܠܓܐ ܓܘܐ ܘܒܗܘܐ ܦܘܠܓܐ ܕܬܪܬܝܗܝ ܗܕܐ ܦܘܠܓܐ ܘܕܚܕܝ ܗܠܬܐ ܦܘܠܓܐ ܡܢ ܕܐܢܝ ܚܡܫܐ ܦܘܠܓܐ ، ܘܒܝܢ ܒܟܠ ܦܘܠܓܐ ܐܝܬ ٦ ܕܝܢܪܐ ܒܗܘܐ ܦܘܠܓܐ ܕܬܪܬܝܗܝ ٢ × ٦ = ١٢ ܕܝܢܪܐ ، ܘܒܗܘܐ ܦܘܠܓܐ ܕܚܕܝ ٣ × ٦ = ١٨ ܕܝܢܪܐ

ܘܐܝܟ ܕܡܬܦܪܫ ܡܢ ܗܪܟܐ ܦܘܢܝܐ ܡܬܚܫܒܢܘܬܐ ܕܡܢܘܬܐ ܕܦܘܪܫܗ̇
ܠܡܢܘܬܐ ܕܬܪܝܢ ܘܐܝܟܢܐ ١٢ : ١٨ = ٢ : ٣ ܒܦܪܝܫܘܬ ܕܦܠܓܘܬܐ ܕܡܢܝܢܐ
ܒܦܫܝܛܘܬܐ ٢ : ٣ ܘܗܘܝܢ ܐܝܟܢܐ ܦܠܓܘܬܐ ܕ ( ٢ + ٣ = ٥ ) ܡܢܘܬ̈ܐ ܫܘܝܐ.

ܘܗܟܢܐ ܗܘܝܐ ܠܦܠܓܘܬܐ ܕܡܢܝܢܐ ٤٠ ܒܦܫܝܛܘܬܐ ٣ : ٥ ܘܗܘܝܢ ܐܝܟܢܐ
ܦܠܓܘܬܐ ٣ + ٥ = ٨ ܡܢܘܬ̈ܐ ܫܘܝܐ ، ܘܗܟܢܐ ܥܠ ܕܐܟܘܬܐ .

ܦܘܫܩܐ ( ٢ ) : ܦܠܓܘܗ̇ ܟܡܝܘܬܐ ٨٤ ܕܝܢܪ̈ܐ ܒܝܢ ܬܪܝܢ ܦܪ̈ܨܘܦܐ
ܕܗܘܝܐ ܦܫܝܛܘܬܐ ܕܡܢܘܬܐ ܕܦܪܨܘܦܐ ܩܕܡܝܐ ܠܡܢܘܬܐ ܕܬܪܝܢܐ ٣ : ٤ ، ܟܡܐ
ܗܘܝܐ ܡܢܘܬܐ ܕܟܠ ܚܕ ܡܢܗܘܢ ؟

ܫܪܝܐ : ܡܢܘܬܐ ܩܕܡܝܬܐ / ܡܢܘܬܐ ܕܬܪܝܢܬܐ = ٣ / ٤

ܡܢܝܢܐ ܕܡܢܘܬܐ ܕܟܠܗܝܢ ܦܠܓܘܬܐ ܗܘܐ ܐܝܟܢܐ : ٣ + ٤ = ٧ ܡܢܘܬܐ
ܗܟܝܠ ܕܐܝܬܐ ܟܡܝܘܬܐ ܕܚܕ ܡܢܘܬܐ = ٨٤ / ٧ = ١٢ ܕܝܢܪܐ
ܘܥܠ ܕܐܝܬܐ ܡܢܘܬܐ ܕܦܪܨܘܦܐ ܩܕܡܝܐ ٣ × ١٢ = ٣٦ ܕܝܢܪܐ
ܘܡܢܘܬܐ ܕܬܪܝܢܐ ٤ × ١٢ = ٤٨ ܕܝܢܪܐ

ܦܘܫܩܐ ( ٣ ) : ܥܒܕܐ ܠܗ ܦܪܨܘܦܐ ܒܦܘܠܚܢܐ ܐܚܪܢܐ ܘܫܠܡܗ ٥ ܝܪ̈ܚܐ
ܡܬܦܩܠܗ ܬܡܢ ܢܦܩ ܒܦܫܝܛܘܬܐ ܒܬܪܗ ܠܦܫܝܛܘܬܗ ܘܫܠܡ ܚܕܐ ܫܢܬܐ
ܡܢ ܫܢܬܐ ܕܦܘܠܚܢܐ ܡܢܝܬܐ ܗܘܬ ٥٧٠ ܕܝܢܪܐ ، ܟܡܐ ܡܢܘܬܐ ܕܟܠ ܚܕ
ܡܢܗܘܢ ܡܢ ܕܐܝܬܐ ܡܢܝܬܐ ؟

ܫܪܝܐ : ܡܢ ܒܦܫܝܛܘܬܐ ܗܢܐ ܫܢܬܐ ܡܢܝܬܐ ܦܠܓܘܬܐ ܠܫܘܐ ܡܢ ܝܪܚܐ
ܒܦܫܝܛܘܬܐ ܕܦܘܠܚܢܗ ܦܫܝܛܘ ܠܫܢܬܐ ١٢ ܝܪܚܐ ܘܦܫܝܛܘܬܐ ܕܬܢܝܢ

١٢ − ٥ = ٧ ܝܪ̈ܚܐ

ܡܢܘܬܐ ܕܦܪܨܘܦܐ / ܡܢܘܬܐ ܕܬܢܝܢ = ١٢ / ٧

١٢ + ٧ = ١٩ ܟܘܢܫܐ ܕܡܢܘܬܐ
٥٧٠ ÷ ١٩ = ٣٠ ܕܝܢܪܐ ܠܚܕ ܡܢܘܬܐ

٣٠ × ١٢ = ٣٦٠ ܕܝܼܢܵܪ̈ܐ ܦܘܼܫܵܐ ܕܦܛܪܘܿܣ

٣٠ × ٧ = ٢١٠ ܕܝܼܢܵܪ̈ܐ ܦܘܼܫܵܐ ܕܝܘܿܢܵܢ

ܬܲܡܪܝܼܢܵܐ ( ٤ ) : ܡܲܪܒܲܥܬܵܐ ܚܘܼܕܪܵܗ̇ ١٣٠ ܡ ܐܸܢ ܦܚܡܵܐ ܕܦܬܵܝܘܼܬܵܗ̇ ܠܐܘܼܪܟܵܗ̇

ܗ̱ܘܵܐ ٤ : ٩ ܐܲܫܟܚ ܠܐܘܼܪܟܵܗ̇ ܘܲܠܦܬܵܝܘܼܬܵܗ̇ :

ܫܪܵܝܵܐ :

١٣٠ ÷ ٢ = ٦٥ ܡ ܦܲܠܓܵܐ ܕܚܘܼܕܪܵܐ

ܐܘܼܪܟܵܐ + ܦܬܵܝܘܼܬܵܐ = ٦٥ ܡ

ܘܡܼܢ ܦܚܡܵܐ ܕܦܬܵܝܘܼܬܵܐ ܠܐܘܼܪܟܵܐ = $\frac{٤}{٩}$

٤ + ٩ = ١٣ ܡܢܵܘ̈ܵܬܵܐ ܕܡܢܵܘܵܬܵܐ ܕܦܠܝܼܓ݂ܝܼ ܥܠܵܝܗܝ ܟܠ ܡܼܢ ܐܘܼܪܟܵܐ ܘܦܬܵܝܘܼܬܵܐ

٦٥ ÷ ١٣ = ٥ ܡ ܡܫܘܼܚܬܵܐ ܕܚܕܵܐ ܡܢܵܬܵܐ

٥ × ٤ = ٢٠ ܡ ܦܬܵܝܘܼܬܵܐ

٥ × ٩ = ٤٥ ܡ ܐܘܼܪܟܵܐ

ܬܲܡܪܝܼܢܵܐ ( ٥ ) : ܐܸܢ ܦܚܡܵܐ ܕܐܘܼܪܟܵܐ ܕܦܲܠܚܵܬܵܐ ܕܐܲܪܥܵܐ ܡܲܪܒܲܥܬܵܐ ܕܐܝܼܬܝܗܿ

ܠܦܬܵܝܘܼܬܵܗ̇ $\frac{٥}{٧}$ ، ܘܐܘܼܪܟܵܗ̇ ܝܲܬܝܼܪ ܗ̱ܘܵܐ ܥܠ ܦܬܵܝܘܼܬܵܗ̇ ܒܡܫܘܼܚܬܵܐ ( ٢٠ ) ܡ

، ܟܡܵܐ ܗ̱ܘܹܐ ܚܘܼܕܪܵܗ̇ ؟

ܫܪܵܝܵܐ : ٧ − ٥ = ٢ ܦܘܼܫܵܐ ܕܡܢܵܘ̈ܵܬܵܐ

٢٠ ÷ ٢ = ١٠ ܡ ܚܕ ܦܘܼܫܵܐ

ܐܘܼܪܟܵܐ = ٧ × ١٠ = ٧٠ ܡ

ܦܬܵܝܘܼܬܵܐ = ٥ × ١٠ = ٥٠ ܡ

ܚܘܼܕܪܵܐ = ( ٧٠ + ٥٠ ) × ٢

= ١٢٠ × ٢ = ٢٤٠ ܡ

* ———————————— *

## ܕܘܪܫܐ ( ٥ ـ ٥ )

١ ـ ܡܨܪܘܦܠܗ ܝܘܢܢ ܠܙܒܢܬܐ ܕܟܬܒܐ ܘܩܠܡܐ ܕܡܐ ܡܘܗܘܒܠܠܗ ܝܘܢܢ
ܠܗ ܕܡܘܗܘܒܠܠܗ ܐܒܘܗ̈ܝ ܒܫܒܬܐ $\frac{٢}{٣}$ ، ܐܢ ܝܕܥܠܝܗ ܕܐܒܘܗ̈ܝ
ܡܘܗܘܒܠܠܗ ٢١ ܕܝܢܪ̈ܐ ، ܟܡܐ ܦܪܥܠܗ ܝܘܢܢ ؟

٢ ـ ܦܫ ܠܝܬܠܗ ܗܕܟܐ ܕܫܢܝܕ ܟܘܪܐ ٤٥٠ ܫܘܠܛܢܐ ܡܢ ܡܕܝܢܬܐ ܠܟܠ ܗܕܝ
ܢܩܘܦܐ
ܒܦܘܫܐ ٤ : ٥ ، ܟܡܐ ܫܘܠܛܢܐ ܦܫܠܗܘܢ ܡܘܗܒܐ ܒܟܠ ܢܩܘܦܐ ؟

٣ ـ ܡܢܝܢܐ ܕܐܪܟܐ ܡܗܝܡܢܬܐ ܕܐܬܪܘܬܐ ܦܘܫܐ ܕܡܘܪܒܐ ܠܦܫܡܘܬܗ ٥ : ٣
، ܐܢ ܣܟܘܡܗ ܝܗܘܐ ١٦٠ ܡ ܟܡܐ ܝܠܗ ܫܘܠܚܘܬܗ ؟

٤ ـ ܡܨܪܘܦܠܗܘܢ ܬܠܬܐ ܦܪ̈ܘܫܐ ܒܝܬ ܡܕܪܫܬܐ ܕܬܪܘܬܐ ܦܪܥܠܗ
ܡܘܬܪܐ ١٦٠٠ ܕܝܢܪ̈ܐ ܘܦܪܥܠܗ ܬܪܝܢܐ ٢٠٠٠ ܕܝܢܪ̈ܐ ܘܦܪܥܠܗ ܬܠܝܬܝܐ
٢٤٠٠ ܕܝܢܪ̈ܐ ، ܟܡܐ ܦܘܪܫܐ ܕܟܠ ܚܕ ܡܢܝܗܘܢ ܡܢ ܡܢܬܐ ܐܢ ܟܠܗܘܢ ܝܗܘܐ
١٢٠٠ ܕܝܢܪ̈ܐ ܒܡܕܝܢܬܐ ܕܫܢܬܐ ؟

٥ ـ ܡܢܝܢܐ ܡܢ ܐܪܒܥܐ ܘܫܬܐ ܡܬܩܪܒܐ ܒܦܘܫܐ ١ : ٣ ܫܢܝܢ ܠܟܠܝܐ ܕܟܠ
ܡܠܘܐܐ ܐܢ ܟܠܐ ܕܡܢܝܢܐ ܝܗܘܐ ٦٤ ܡܠܘܐܐ ؟

٦ ـ ܦܘܫܐ ܕܫܘܡܕܐ ܕܡܠܚܐ ܠܫܘܡܕܐ ܕܟܢܫܐ $\frac{٢}{٥}$ ܐܢ ܫܘܡܕܐ ܕܡܠܚܐ
ܬܪܝܢ ܡܢ ܫܘܡܕܐ ܕܟܢܫܐ ٣٠ ܬܢܐ ، ܟܡܐ ܝܠܗ ܫܘܡܕܐ ܕܟܠ ܚܕ ܡܢܝܗܘܢ ؟

# ܦܣܘܩܐ ܫܬܝܬܝܐ

# ܦܪܘܩܐ ܡܫܝܚܐ

[ ٦ . ١ ] ܡܫܝܚ ܐܠܗܐ

[ ٦ . ٢ ] ܕܡܘܬ ܡܫܬܠܛܢܐ

[ ٦ . ٣ ] ܚܕܬܐ ܕܡܠܟܘܬܐ

[ ٦ . ٤ ] ܫܠܝܚܘܬܐ ܕܩܝܡܬܐ ܕܡܠܟܘܬܐ

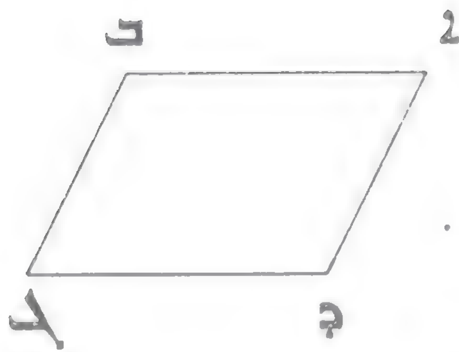
[ ٦ . ٥ ] ܚܘܕܬܐ

[ ٦ . ٦ ] ܫܠܝܚܘܬܐ ܕܩܝܡܬܐ ܚܘܕܬܢܝܬܐ

# ܦܬܘܬܐ ܕܡܫܘܚܬܐ

## ܐܣܟܡܐ ܦܫܝܛܐ

٦ - ١ ܡܩܒܠ ܐܠܥܐ :




ܐܣܟܡܐ ܪܒܝܥܝܐ ܕܟܘܢܐ ܗܘܐ

ܦܝܫ ܩܪܝܐ ܡܩܒܠ ܐܠܥܐ ܒܕܘܟ

ܕܟܠ ܚܕ ܡܢ ܐܦܠܐ ܠܗܘ ܡܩܒܠܐ ܝܠܗ .

ܣܘܦܩܐ :

ܡܫܘܚܬܐ $\overline{ܐܒ}$ = ܡܫܘܚܬܐ $\overline{ܓܕ}$ ܘܗܘܐ ܗܟܢ

ܡܫܘܚܬܐ $\overline{ܐܕ}$ = ܡܫܘܚܬܐ $\overline{ܒܓ}$ ܘܐܦ

ܐܝ ܕܝܡܠܘܟ ܡܩܒܠ ܐܠܥܐ ܐܝܬܝܗ ܒܢܘܢ :

ܟܠ ܚܕ ܐܠܥܐ ܐܦܠܐ ܕܡܩܒܠ ܐܠܥܐ ܫܘܝܐ ܕܡܫܘܚܬܐ

ܒܢܘܢ : ܡܫܘܚܬܐ ܐ ܒ̂ ܓ = ܡܫܘܚܬܐ ܐ ܕ̂ ܓ

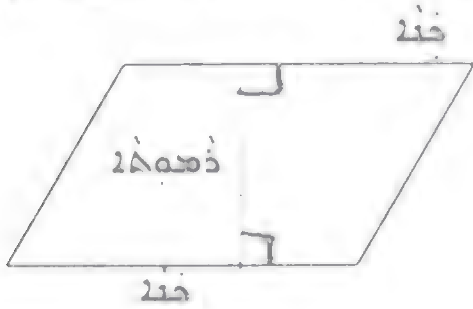
ܘܗܕܟܐ ܡܫܘܚܬܐ ܒ ܐ̂ ܕ = ܡܫܘܚܬܐ ܒ ܓ̂ ܕ

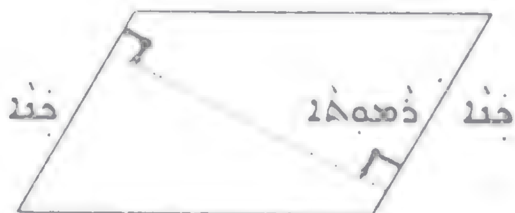
ܘܠܗܘܢܝܐ :

ܟܠ ܚܕ ܙܘܝܬܐ ܐܦܠܐ ܠܗ ܡܩܒܠ ܐܠܥܐ ܫܘܝܬܐ ܕܡܫܘܚܬܐ

ܦܬܐ ܘܪܘܡܬܐ ܠܗ ܡܩܒܠ ܐܠܥܐ :

ܪܡܘܐ ܡܢܐ ܪܘܡܬܐ ܘܦܬܐ ܠܗ ܐܣܟܡܐ ܕܠܗܘܢ ܠܗ ܡܩܒܠ ܐܠܥܐ ،



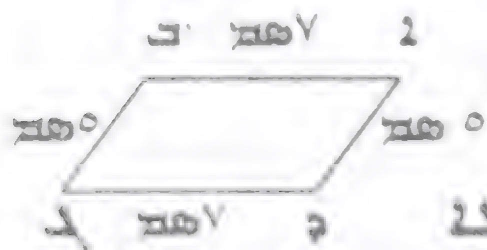



ܚܘܕܪܐ ܕܡܩܒܠ ܐܠܥܐ :

ܚܘܕܪܐ ܕܡܩܒܠ ܐܠܥܐ = ܟܢܫܐ ܕܡܫܘܚܬܐ ܕܐܪܒܥܐ ܐܠܥܘܗܝ .

ܡܬܠܐ : ܐܫܟܚ ܡܘܪܟܐ ܕܚܘܕܪܐ ܕܡܩܒܠ ܐܠܥܐ ܕܡܫܘܚܬܐ ܕܐܠܥܘܗܝ

٧ ܣܡ ، ٥ ܣܡ ، ٧ ܣܡ ، ٥ ܣܡ .




ܫܪܝܐ :

٧ + ٥ + ٧ + + ٥ = ٢٤ ܣܡ ܚܘܕܪܐ ܕܡܩܒܠ ܐܠܥܐ

ܡܬܠܐ ( ٢ ) :

ܐܫܟܚ ܚܘܕܪܐ ܕܡܩܒܠ ܐܠܥܐ ܐܢ ܡܫܘܚܬܐ ܕܬܪܝܢ ܐܠܥܘܗܝ ܢܩܝܦܐ

ܗܘܝ ٩ ܣܡ ، ٧ ܣܡ

ܫܪܝܐ :

ܝܕܥܝܢܢ ܗܘܝܢ ܕܟܠ ܡܩܒܠܢܐ ܡܫܘܚܬܐ ܕܬܪܝܗܘܢ ܐܠܥܐ ܐܚܪܢܐ ܒܗܝ ܕܦܠ

ܗܕܐ ܐܠܥܐ ܐܦܠܐ ܫܘܝܢ ܗܢܐ ܒܡܫܘܚܬܐ ܘܡܛܠ ܕܗܢܐ ܒܐܡܪܝܢ ܘܡܠܘ

ܒܡܫܐ ܠܦܠܓܗ ܕܚܘܫܒܐ ܕܚܘܕܪܐ = ( ٧ + ٩ ) × ٢

= ( ٩ + ٧ ) + ( ٩ + ٧ )

= ١٦ × ٢ = ٣٢ ܣܢܛܝܡܛܪܐ

ܘܠܗܕܐ :

| ܚܘܕܪܐ ܕܡܩܒܠ ܐܠܥܐ = ܟܢܫܐ ܕܬܪܝܗܘܢ ܐܠܥܐ ܢܩܝܦܐ × ٢ |
|---|

ܡܬܠܐ ( ٣ ) :

ܡܩܒܠ ܐܠܥܐ ܚܘܕܪܗ ٨٠ ܣ ܘܡܘܪܟܐ ܕܚܕ ܐܠܥܘܗܝ ٢٤ ܣ ، ܟܡܐ ܗܘܐ

ܡܘܪܟܐ ܕܐܠܥܐ ܐܚܪܢܐ ؟

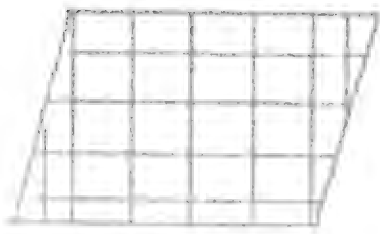
ܫܪܝܐ :

٨٠ ÷ ٢ = ٤٠ ܣ ܦܠܓܗ ܕܚܘܕܪܐ

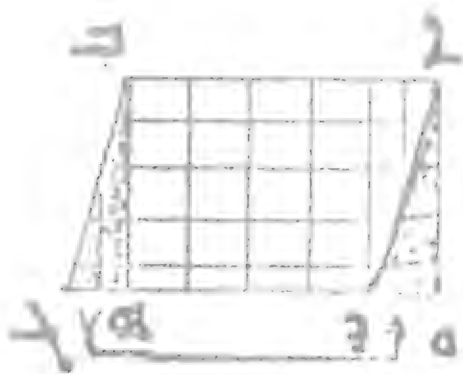
٤٠ − ٢٤ = ١٦ ܣ ܡܘܪܟܐ ܕܐܠܥܐ ܐܚܪܢܐ

ܫܛܝܚܘܬܐ ܕܡܩܒܠ ܐܠܦܐ :

ܚܙܝܢ ܠܗ ܡܦܩܢܘܬܐ ܕܫܛܝܚܘܬܐ ܕܦܬܝܐ ܡܪܒܥܬܐ ܐܘ ܡܩܒܠܬܐ ܕܡܫܪ̈ܢܐ ܕܡܪܒܥܐ ܘܚܘܪܐ ܐܝܟ ܚܕܝܘܬܐ ܕܡܫܘܚܬܐ ܦܬܝܚܘܬܐ ܠܗܘ ، ܐܠܦܐ ܡܫܪ̈ܢܐ ܕܡܪܒܥܐ ܕܚܫܒ ܦܬܝܐ ܕܡܩܒܠ ܐܠܦܐ ܠܐ ܗܠܝܢ ܦܬܝܚܘܬܐ ܐܝܟ ܕܠܗ ܐܫܟܚܢ ܕܐܬܐ :



ܟܠ ܕܐܝܬ ܠܗ ܡܫܬܪܢܘܬܐ ܕܫܛܝܚܘܬܐ ܕܡܩܒܠ ܐܠܦܐ ܒܕ ܫܠܦܝܢ ܠܗ ܠܡܩܒܠܐ ܘܐܝܬܐ ܒܪܡܫܬܐ ܕܫܘܪܝܐ ܡܢ ܚܕ ܪܘܫܗ ܐܝܟ ܒ ܥܠ ܦܘܐ ܕ ܓ ܡܢ ܡܝܬ ܡܬܠܬܐ ( ܒ ܗ ܓ ) ܘܡܬܒܢܠܗ ܒܓܢܒܐ ܐܚܪܢܐ ܐܝܟ ܕܠܗ ܐܫܟܚܢ ܘܦܝܫ ܐܫܟܚܢ ܡܩܒܠܐ ܘܫܛܝܚܘܬܗ ܝܠܗ ܫܛܝܚܘܬܐ ܕܡܩܒܠ ܐܠܦܐ ܒܢܬܗ ܘܡܕ :



| ܫܛܝܚܘܬܐ ܕܦܬܝܐ ܡܩܒܠܬܐ = ܚܘܪܒܐ × ܦܬܝܘܬܐ<br>ܐܘ ܡܫܘܚܬܐ ܕܦܬܐ × ܡܫܘܚܬܐ ܕܪܘܡܬܐ |
|---|

## ٦ . ٢ ܕܡܘܬ ܡܝܛܠܢ̈ܬܐ :




ܐܗܐ ܐܫܟܚܢ ܐ ܒ ܓ ܕ
ܡܩܒܠ ܐܠܦܐ
ܟܠܗܘܢ ܐܠܦܘܗ ܫܘܝܢ ܦܝܫ ܡܪܢܐ
ܕܡܘܬ ܡܝܛܠܢ̈ܬܐ
ܚܕܪܐ ܕܕܡܘܬ ܡܝܛܠܢ̈ܬܐ = ܟܢܘܫܝܐ ܕܪ̈ܒܥܐ ܐܠܦܘܗ
= ܚܘܪܒܐ ܕܐܠܦܐ × ٤

ܛܘܦܣܐ : ܐܫܟܚ ܚܘܕܪܐ ܕܕܡܘܬ ܡܪܒܥܢܝܬܐ ܡܘܪܟܐ
ܕܐܠܥܗ = ٥ ܣܡ
ܫܪܝܐ :

ܚܘܕܪܐ ܕܕܡܘܬ ܡܪܒܥܢܝܬܐ = ܡܘܪܟܐ ܕܐܠܥܐ × ٤

= ٥ × ٤ = ١٢ ܣܡ

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ܬܘܢܝܐ :

١ . ܐܫܟܚ ܚܘܕܪܐ ܕܕܡܘܬ ܡܪܒܥܢܝܬܐ ܡܘܪܟܐ ܕܐܠܥܗ ܗܘܐ ٥ ، ١٧ ܣܡ .

٢ . ܕܡܘܬ ܡܪܒܥܢܝܬܐ ܚܘܕܪܗ = ٨٤ ܣܡ ܐܫܟܚ ܡܘܪܟܐ ܕܐܠܥܗ .

ܕܘܪܫܐ

١ . ܐܫܟܚ ܚܘܕܪܐ ܕܡܬܠܬ ܐܠܥܐ ܐ، ܡܫܘܚܬܐ ܕܬܪܝܢ ܐܠܥܐ ܫܘܝܐ
ܗܘܐ ١٧ ܣܡ ، ١٣ ܣܡ .

٢ . ܡܐ ܟܡܝܘܬܐ ܕܦܬܝܠܐ ܡܬܒܥܐ ܠܡܬܠܬ ܐܠܥܐ ܐ، ܡܘܪܟܐ ܕܥܒܝܗ ٤٠ ܣܡ
ܘܦܬܝܘܬܗ ٥ ، ١٢ ܣܡ ؟

٣ . ܡܬܠܬ ܐܠܥܐ ܚܘܕܪܗ ١٠٠ ܣܡ ܘܡܘܪܟܐ ܕܚܕ ܐܠܥܗ ٣٤ ܣܡ ، ܟܡܐ
ܝܠܗ ܡܘܪܟܐ ܕܐܠܥܐ ܐܚܪܢܐ ؟

٤ . ܘܦܝܠܗܘܢ ܡܬܠܬܐ ܕܐܪܥܐ ܒܐܣܟܡܐ ܡܬܠܬ ܐܠܥܐ ܥܒܝܗ ٥ ، ٩٥ ܡ
ܘܦܬܝܘܬܗ ٥ ، ٦٥ ܡ ܒܟܡܝܘܬܐ ٦٠ ܕܝܢܪܐ ܠܡܫܘܚܬܐ ܡܪܒܥܐ ، ܟܡܐ
ܘܦܝܠܗܘܢ ܐܝܗܐ ܡܬܠܬܐ ؟

٥ . ܒܥܝ ܐܫܟܚܐ ܕܛܘܦܣܐ ܕܦܬܠܐ ܡܬܠܬܐ ܕܐܣܟܡܐ ܡܘܪܟܗ ٢٥ ܡ
ܘܦܬܝܘܬܗ ١٥ ܡ ، ܟܡܐ ܝܠܗ ܟܡܝܘܬܗ ؟

٦ . ܛܝܡܐ ܕܡܫܚܬܐ ܕܐܪܥܐ ܕܕܡܘܬ ܡܪܒܥܢܝܬܐ ܕܐܣܟܡܐ ١٠٠٠٠ ܕܝܢܪܐ ،
ܟܡܐ ܝܠܗ ܡܘܪܟܐ ܕܐܠܥܗ ܐ، ܛܝܡܐ ܕܡܫܘܚܬܐ ܡܢ ܡܫܚܬܐ ٢٠٠ ܕܝܢܪܐ ؟

٧ . ܐܪܥܐ ܡܬܠܬܐ ܕܐܣܟܡܐ ܡܘܪܟܗ ١٨ ܡ ܘܦܬܝܘܬܗ ١٠ ܡ ، ܐܫܟܚ
ܟܡܝܘܬܐ ܕܐܪܥܐ ؟

٨ . ܦܬܠܐ ܒܐܣܟܡܐ ܕ ܡܬܠܬ ܐܠܥܐ ܥܒܝܗ ٢٤ ܣܡ ܘܦܬܝܘܬܗ $\frac{٣}{٤}$
ܕܥܒܝܗ ، ܟܡܐ ܝܠܗ ܟܡܝܘܬܗ ؟

٩ . ܦܫܝܛܘܬܐ ܡܪܒܥܬܐ ܕܐܝܬ ܠܗ̇ ܐܘܪܟܐ ܕܐܠܥܗ̇ ١٧ ܣܡ . ܐܚܫܒ
ܫܟܝܚܘܬܐ ܦܘܫܛܗ̇ ܘ ܚܘܕܪܗ̇ .

١٠ . ܡܠܟܐ ܕܐܪܥܐ ܡܪܒܥܬܐ ܕܐܝܬ ܐܘܪܟܐ ܕܐܠܥܗ̇ = ٢٠ ܣܡ ܘܦܫܝܛܘܬܐ
ܕܦܫܝܛܬܐ ܡܪܒܥܬܐ ܡܢܗ̇ = ٨٥ ܕܝܢܪ̈ܐ ، ܟܡܐ ܐܝܬܘ ܦܫܝܛܘܬܗ̇ ؟

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## ٦ . ٣ ܚܘܕܪܐ ܕܡܬܠܬܐ

ܡܘܦܬܐ ( ١ ) : ܒܥܠܠܗ ܐܘܪܟܐ ܕܚܘܛܐ ܡܢ ܡܬܠܬܐ ܡܢ ܚܕܠܗ ܒܐܣܘܪܐ
ܕܡܬܠܬܐ ܟܡܝܢܐ ܡܢ ܚܘܛܐ ܡܬܒܥܝܐ ، ܟܡܐ ܡܫܘܚܬܐ ܐܝܬ ܠܝ ، ܕܐܘܪܟܐ
ܕܐܠܥܐ ܕܡܬܠܬܐ ܕܢܫܟܚ ܢܗܘܐ :




٢٠ ܣܡ ، ٢٤ ܣܡ ، ٢٨ ܣܡ .

ܫܪܝܐ :

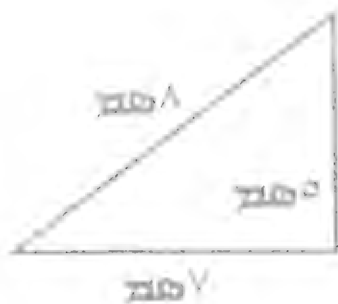
٢٠ + ٢٤ + ٢٨ = ٧٢ ܣܢܬܝܡܐ

ܒܥܢܝܢ ܐܪܟܐ ٧٢ ܣܢܬܝܡܐ ܡܢ ܚܘܛܐ .

ܚܘܕܪܐ ܕܡܬܠܬܐ ܐܝܬܘ ܟܢܫܐ ܕܐܘܪܟܐ ܕܐܠܥܘܗܝ ܬܠܬܐ :

| ܚܘܕܪܐ ܕܡܬܠܬܐ = ܟܢܫܐ ܕܡܫܘܚܬܐ ܕܐܠܥܘܗܝ ܬܠܬܐ |
|---|

ܡܘܦܬܐ ( ٢ ) : ܟܡܐ ܚܘܕܪܐ ܕܡܬܠܬܐ




ܐܘܪܟܐ ܕܐܠܥܘܗܝ ٥ ܣܡ ، ٧ ܣܡ ، ٨ ܣܡ

ܚܘܕܪܐ = ( ٥ + ٧ + ٨ ) ܣܡ

= ٢٠ ܣܡ

ܡܘܦܬܐ ( ٣ ) : ܐ ܒ ܓ ܡܬܠܬܐ ܫܘܝܐ

ܕܐܝܬ ܠܗ ܡܫܘܚܬܐ $\overline{ܐܒ}$ = ܡܫܘܚܬܐ $\overline{ܐܓ}$ = ٨،٢ ܣܡ .

ܘܡܫܘܚܬܐ $\overline{ܒܓ}$ = ٣،٦ ܣܡ ، ܟܡܐ ܐܝܬܘ ܚܘܕܪܗ ؟

ܚܘܕܪܐ = ( ٨،٢ + ٨،٢ + ٣،٦ ) = ٢٠ ܣܡ .

## ܕܘܪܫܐ

١ - ܟܡܐ ܗܘܝܐ ܣܘܟܡܐ ܕܡܬܠܬܐ ܡܬܘܚܝܬܐ ܕܐܠܥܘܗܝ ٥ ، ٤ ܣܡ ،
٤ ، ٥ ܣܡ ، ٧ ، ٣ ܣܡ

٢ - ܟܡܐ ܗܘܝܐ ܣܘܟܡܐ ܕܡܬܠܬܐ ܫܘܝܐ ܕܐܠܥܐ ܕܡܬܘܚܝܬܐ ܕܐܠܥܘܗܝ
ܫܘܝܐ ٧ ܡܝܛܪܐ ؟

٣ - ܡܬܠܬܐ ܫܘܝܐ ܕܬܪܝܢ ܐܠܥܐ ܕܚܕܐ ܡܢܗܝܢ ٧ ܣܡ ܘܡܬܘܚܝܬܐ ܕܟܠ ܚܕ ܡܢ ܐܚܪ̈ܢܐ
ܫܘܝܢ ܐܠܥܘܗܝ ٥ ܣܡ ، ܟܡܐ ܗܘܝܐ ܣܘܟܡܗ ؟

### ٦ - ٤ ܫܛܝܚܘܬܐ ܕܦܐܬܐ ܡܬܠܬܐ :

ܒܡܬܠܬܐ ܗܢܐ ܐ ܒ ܓ
ܥܠܬܗ ܒ ܓ ܘܪܘܡܗ ܐ ܕ
ܢܬܒܢܐ ܠܘܬܗ ܡܬܠܬܐ ܫܠܡ
ܘܐܝܟ ܘܡܘܬܒܗ ܘܢܒܘܥܠܗ
ܥܡ ܦܐܬܐ ܐܚܪܝܬܐ ܘܡܘܬܒܗ ܘܡܬܚܒܠ ܠܐܦܐܘ̈ܗܝ ܡܬܠܬܐ ܥܡ ܟܢܫ
ܐܚܪܢܐ ܐܝܟ ܕܡܬܚ ܕܡܬܠܬܐ ܒܝܢ ܡܬܒܪܐ ܡܢܗ ܡܬܚܘܐ ܕܐܠܥܐ ܥܠܬܗ ܒ ܓ
ܘܗܘܝܐ ܥܠܬܐ ܠܡܬܠܬܐ ܐ ܒ ܓ .
ܗܝܕܝܢ ܪܘܡܐ ܕܡܚܘܐ ܕܐܠܥܐ $\overline{ܐ ܕ}$ ܘܗܘܝܐ ܪܘܡܐ ܠܡܬܠܬܐ ܐ ܒ ܓ
ܘܫܛܝܚܘܬܐ ܕܦܐܬܐ ܕܡܘܬܒ ܕܐܠܥܐ = ܡܘܢܝܐ ܕܫܛܝܚܘܬܐ ܕܦܐܬܐ ܕܐܦܐܘ̈ܗܝ
ܦܐܬܐ ܡܬܠܬܐ ܐ ܒ ܓ ، ܐ ܓ ܗ .

ܗܝܕܝܢ ܒܐܚܪܝܢ :
ܕܫܛܝܚܘܬܐ ܕܦܐܬܐ ܡܬܠܬܐ ܐ ܒ ܓ
= $\frac{١}{٢}$ ܫܛܝܚܘܬܐ ܕܡܚܘܐ ܕܐܠܥܐ ܐ ܒ ܓ ܗ .
ܫܛܝܚܘܬܐ ܕܦܐܬܐ ܡܬܠܬܐ = $\frac{١}{٢}$ ( ܡܬܘܚܝܬܐ $\overline{ܒ ܓ}$ × ܡܬܘܚܝܬܐ $\overline{ܐ ܕ}$ )
= $\frac{١}{٢}$ ܥܠܬܐ × ܪܘܡܐ

ܝܗܝܒܬܐ : ܡܬܝܚܐ ܐ ܒ ܓ ܕ ܘܡܬܠܬܐ ܐ ܒ ܗ .

ܚܘܝ ܠܡܬܝܚܐ ܐ ܒ ܓ ܕ ܘܡܬܠܬܐ ܐ ܒ ܗ

ܚܘܝ ܠܡܬܝܚܐ ܐ ܕ ܗ ܟ ܒܚܘܬ ܕܐܠܟܣܢܐ ܐ ܗ̄ ܦܠܝܓܠܗ ܠܦܢܝܬܐ ܡܬܝܚܬܐ ܠܬܪܬܝܢ ܦܢܝܬܐ ܡܬܠܬܝܬܐ ܕܟܠ ܚܕ ܡܢܗܘܢ ܫܘܐ ܠܐܚܪܢܐ ܒܫܛܝܚܘܬܐ ، ܘܗܟܢ ܐܠܟܣܢܐ ܒ ܗ̄ ܦܠܝܓܠܗ ܠܦܢܝܬܐ ܡܬܝܚܬܐ ܒ ܓ ܗ ܟ ܠܬܪܬܝܢ ܦܢܝܬܐ ܡܬܠܬܝܬܐ ܫܘܝܐ ܒܫܛܝܚܘܬܐ .

ܒܗܕܐ ܗܘܝ :

ܕܫܛܝܚܘܬܐ ܕܦܢܝܬܐ ܡܬܠܬܬܐ ܐ ܗ ܟ =

$\frac{١}{٢}$ ܫܛܝܚܘܬܐ ܕܦܢܝܬܐ ܐ ܟ ܗ ܕ

ܘܫܛܝܚܘܬܐ ܕܦܢܝܬܐ ܡܬܠܬܬܐ ܒ ܗ ܟ =

$\frac{١}{٢}$ ܫܛܝܚܘܬܐ ܕܦܢܝܬܐ ܡܬܝܚܬܐ ܒ ܓ ܗ ܟ .

ܐܢ ܡܩܘܝܡܢܢ ܠܚܕܕܐ ܦܢܝܬܐ ܡܬܠܬܝܬܐ ܐ ܗ ܟ ، ܒ ܗ ܟ ܠܦܪܘܫܐ ܒܚܝܢ ܠܦܢܝܬܐ ܡܬܠܬܬܐ ܐ ܒ ܗ . ܘܐܢ ܡܩܘܝܡܢܢ ܠܚܕܕܐ ܦܢܝܬܐ ܡܬܝܚܬܐ ܐ ܟ ܗ ܕ ، ܟ ܒ ܓ ܗ ܠܦܪܘܫܐ ܒܚܝܢ ܠܦܢܝܬܐ ܡܬܝܚܬܐ ܐ ܒ ܓ ܕ .

ܘܟܠ ܕܗܘܐ ܫܛܝܚܘܬܐ ܕܦܢܝܬܐ ܡܬܠܬܬܐ ܐ ܒ ܗ

= $\frac{١}{٢}$ ܫܛܝܚܘܬܐ ܕܦܢܝܬܐ ܡܬܝܚܬܐ

ܐ ܒ ܓ ܕ = $\frac{١}{٢}$ ܒܣܝܣܐ ܐ ܒ̄ × ܪܘܡܘܬܐ ܗ ܟ̄

ܘܟܠ ܕܗܘܐ : | ܫܛܝܚܘܬܐ ܕܦܢܝܬܐ ܡܬܠܬܬܐ = $\frac{١}{٢}$ ܒܣܝܣܗ × ܪܘܡܘܬܗ |

ܦܘܫܩܐ : ܦܢܝܬܐ ܡܬܠܬܬܐ ܒܣܝܣܗ ٢٠ ܡܝܬܪܐ ܘܪܘܡܘܬܗ ١٦ ܡܝܬܪܐ ، ܡܢܐ ܗ̄ܝ ܫܛܝܚܘܬܐ ܕܗܕܐ ܦܢܝܬܐ ؟

ܫܪܝܐ :

ܫܛܝܚܘܬܐ ܕܦܢܝܬܐ ܡܬܠܬܬܐ = $\frac{١}{٢}$ × ٢٠ × ١٦ = ١٦٠ ܡܝܬܪܐ ܡܪܒܥܐ

# ܕܘܪܫܐ

١ . ܦܬܝܐ ܡܬܠܬܐ ܐܘܪܟܗ ٤٠ ܣܡ ܘܪܘܡܘܬܗ ٢٠ ܣܡ ، ܟܡܐ ܗܘܐ ܫܛܝܚܘܬܗ ؟

٢ . ܓܢܒܐ ܡܬܠܬܐ ܕܐܣܩܘܡܐ ܐܘܪܟܗ ٥ ، ٧٥ ܣܡ ܘܪܘܡܘܬܗ ٥٨ ܣܡ ، ܟܡܐ ܗܘܐ ܫܛܝܚܘܬܐ ܕܟܠ ܡܢܗܘܢ ܡܬܠܬܐ ܡܢܗ ܗܘܐ $\frac{1}{2}$ ١ ܕܡܢܬܐ ؟

٣ . ܗܪܟ ܡܬܠܬܐ ܕܐܪܒܥ ܩܘܫ ܒܫܛܝܚܘܬܐ ، ܡܘܫܝܐ ܒܐܣܩܘܡܐ ܕܡܬܠܬܐ ܐܘܪܟܗ ٢٠ ܣܡ ܘܪܘܡܘܬܗ ٣٠ ܣܡ ܘܡܬܪܒܥܐ ܒܐܣܩܘܡܐ ܕܡܫܚܬܐ ܦܬܝܘܬܗ ١٥ ܣܡ ، ܟܡܐ ܗܘܐ ܐܘܪܟܗ ؟

٤ . ܡܬܠܬܐ ܕܐܪܒܥ ܡܬܠܬܐ ܕܐܣܩܘܡܐ ܫܛܝܚܘܬܗ ٣٠٠ ܣܡ ܘܐܘܪܟܐ ܕܝܠܗ ٣٠ ܣܡ ، ܐܝܟܢ ܪܘܡܘܬܗ ؟

# ܚܘܕܪܐ ܘܫܛܝܚܘܬܐ ܕܨܘܪ̈ܬܐ ܫܘ̈ܝܐ

ܚܘܦܛܐ :

ܚܕ : ܡܠܝ ܠܟܠ ܚܕ ܕܐܬܐ :

| ܐܣܟܡܐ | ܚܘܕܪܐ | ܫܛܝܚܘܬܐ | ܕܘܪܫܐ |
|---|---|---|---|
| ܡܪܒܥܐ | ٤ × .......... | ܐܘܪܟܐ ܕܐܠܥܐ × ... | ܡܫܘܚܬܐ ܕܐܠܥܐ ܕܡܪܒܥܐ ٥ ܣܡ، ܐܝܟܢ ܗܠ ܗܝ ܚܘܕܪܗ ܘܫܛܝܚܘܬܗ ؟ ܚܘܕܪܐ = ܫܛܝܚܘܬܐ = |
| ܡܬܝܚܐ | (ܐܘܪܟܐ+ܦܬܝܘܬܐ) × ... | ܐܘܪܟܐ .. ܦܬܝܘܬܐ | ܡܬܝܚܐ ܐܘܪܟܗ ١٠ ܣܡ ܘܦܬܝܘܬܗ ٧ ܣܡ. ܐܝܟܢ ܚܘܕܪܗ ܘܫܛܝܚܘܬܐ ؟ ܚܘܕܪܐ = ܫܛܝܚܘܬܐ = |
| ܡܬܠܬܐ | ܟܢܫܐ ܕܡܫܘܚܬܐ ܕ ........... | ___ ܐܣܐ × | ܡܬܠܬܐ ܐܘܪܟܐ ܕܐܣܗ ١٠ ܣܡ، ܘܪܘܡܗ ٨ ܣܡ، ܐܝܟܢ ܠܫܛܝܚܘܬܗ ؟ ܫܛܝܚܘܬܐ = ܡܬܠܬܐ ܫܘܝܐ ܕܐܠܥ̈ܐ ܡܫܘܚܬܐ ܕܚܕ ܐܠܥܗ ٣.٥ ܣܡ ܐܝܟܢ ܠܚܘܕܪܗ ؟ ܚܘܕܪܐ = |
| ܡܬܝܚ ܐܠܥ̈ܐ | ܡܫܘܚܬܐ ܕܬܪܝܢ ܐܠܥ̈ܐ ܢܩܝܦܐ × ...... | × | ܡܫܘܚܬܐ ܕܬܪܝܢ ܐܠܥ̈ܐ ܢܩܝܦܐ ܠܗܘܢ ٥ ܣܡ . ١٠ ܣܡ . ܟܡܐ ܗ̄ܘ ܚܘܕܪܗ ؟ ܚܘܕܪܐ = ܡܬܝܚ ܐܠܥ̈ܐ ܐܣܗ ٥ ܣܡ ܘܪܘܡܗ ١٢ ܣܡ . ܐܝܟܢ ܫܛܝܚܘܬܗ ؟ ܫܛܝܚܘܬܐ = |

ܦܘܫܩܐ ( ١ ) :

ܡܪܒܥܐ ܫܛܝܚܘܬܗ ١٤٤ ܣܡ$^2$، ܐܝܟܢ ܐܘܪܟܐ ܕܐܠܥܗ .

ܦܘܫܪܐ : ܕܒܥܝܢ ܡܢ ܡܢܝܢܐ ܠܡܫܟܚܐ ܕܐܘܪܟܐ ܕܐܠܥܐ ܕܡܪܒܥܐ = ܥܩܪܐ ܡܪܒܥܐ ܕܫܛܝܚܘܬܐ

ܢܘܪܒܐ ܕܐܠܟܐ = $\sqrt{١٤٤}$ = ١٢ ܣܡ

| | | |
|---|---|---|
| ٢ | ٢ | ١٤٤ |
| | ٢ | ٧٢ |
| ٢ | ٢ | ٣٦ |
| | ٢ | ١٨ |
| ٣ | ٣ | ٩ |
| | ٣ | ٣ |
| | | ١ |

١٢ = ٣×٢×٢

ܬܘܦܣܐ (٢):

ܡܪܒܥܐ ܫܛܝܚܘܬܗ ٢٢٥ ܣܡ²، ܐܫܟܚ ܢܘܓܪܗ.

ܦܘܢܝܐ: ܢܘܪܒܐ ܕܐܠܟܐ ܕܡܪܒܥܐ = ܫܪܫܐ ܪܒܝܥܝܐ ܕܫܛܝܚܘܬܐ

ܢܘܪܒܐ ܕܐܠܟܐ = $\sqrt{٢٢٥}$

= ٣ × ٥

= ١٥ ܣܡ ܢܘܪܒܐ ܕܐܠܟܐ

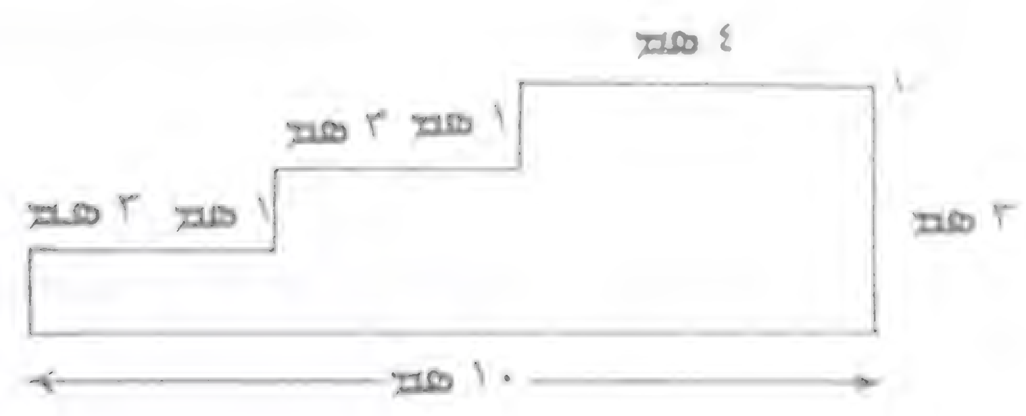
| | | |
|---|---|---|
| ٣ | ٣ | ٢٢٥ |
| | ٣ | ٧٥ |
| ٥ | ٥ | ٢٥ |
| | ٥ | ٥ |
| | | ١ |

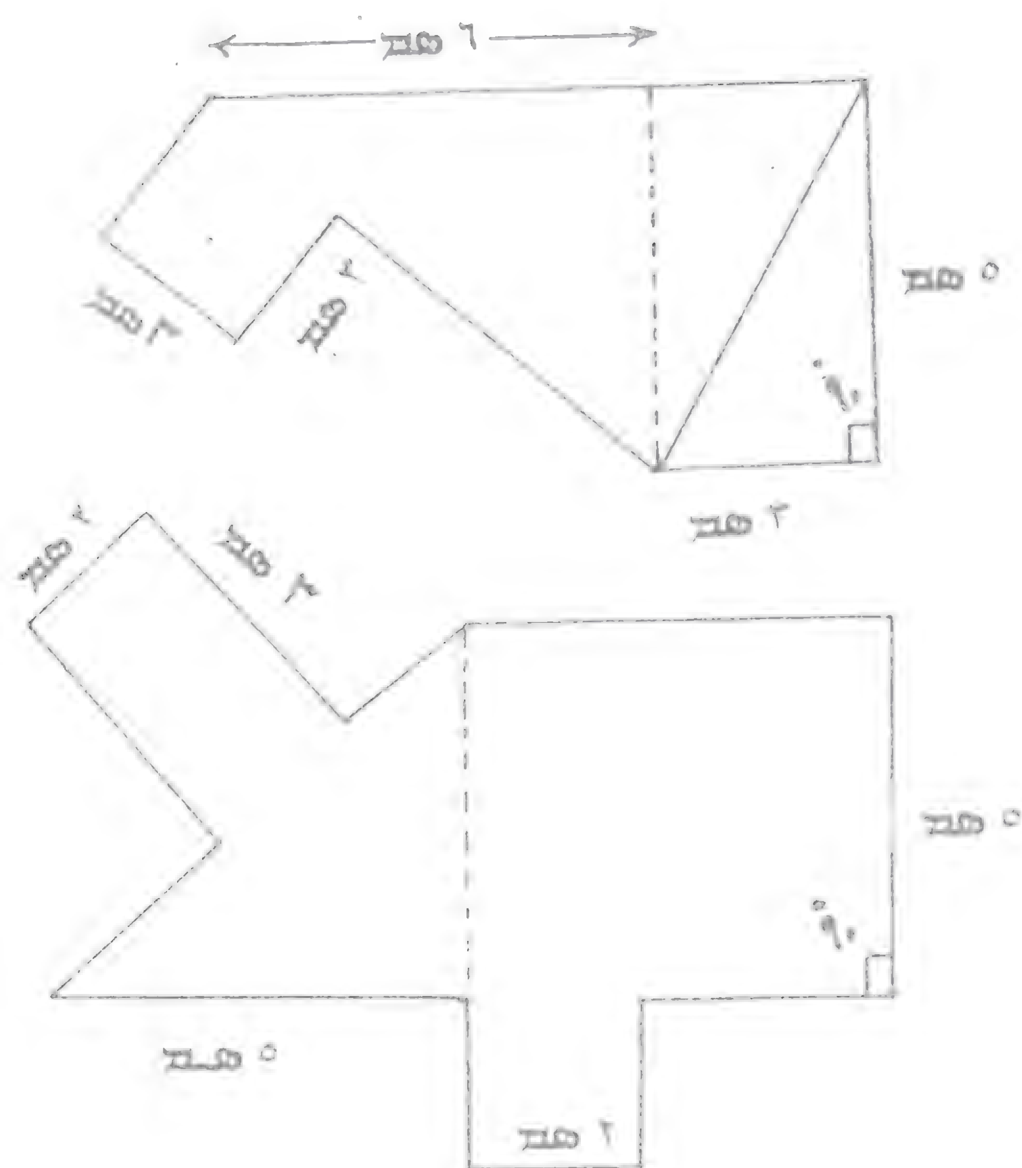
١٥ = ٥ × ٣

ܗܫܐ: ܐܫܟܚ ܫܛܝܚܘܬܐ ܕܟܠ ܡܢ ܐܣܟܡܐ ܕܐܬܝ:

ܢܣܒ ܕܦܠܓܬ ܠܐܣܟܡܐ ܠܦܢܝܬܐ ܡܢ ܐܫܟܚ ܫܛܝܚܘܬܐ ܕܟܠ ܦܢܝܬܐ

ܢܟܢܫ ܡܢ ܒܬܪ ܫܛܝܚܘܬܐ ܕܦܢܝܬܐ.






ܕܘܼܪܵܫܵܐ ( ٦ - ١ )

١ - ܦܬܵܐ ܕܐܲܪܥܵܐ ܡܪܲܒܲܥܬܵܐ ܕܐܸܣܟܸܡܵܐ ܡܫܘܚܬܹܗ ٦٢٥ ܡܝܛܪܵܐ ܡܪܲܒܥܵܐ :
ܐܸܫܟܲܚ ܐܘܼܪܟܵܐ ܕܐܸܠܥܹܗ .

٢ - ܦܬܵܐ ܠܐܸܣܟܸܡܵܐ ܕܡܩܲܒܝܼܠܵܐ ܐܘܼܪܟܹܗ ١٨ ܣ ܘܩܝܡܘܼܬܹܗ ١٠ ܣ ، ܚܫܘܿܒ
ܡܫܘܚܬܵܐ ܕܗܵܕܐ ܦܬܵܐ .

٣ - ܡܬܠܬܵܐ ܘܩܝܼܡܬܵܐ ܕܙܵܘܝܼܬܵܐ ܡܬܘܼܣܲܚܬܵܐ ܕܐܸܠܥܹܗ ܘܩܝܼܡܹܐ ١٠ ܣܡ ، ٧ ܣܡ ،
ܟܡܵܐ ܝܠܹܗ ܡܫܘܚܬܹܗ .

٤ - ܐܲܪܥܵܐ ܒܐܸܣܟܸܡܵܐ ܕܡܩܲܒܝܼܠ ܐܸܠܥܵܐ ܐܘܼܪܟܵܐ ܕܓܢܒܹܗ ٣٠ ܣ ܘܦܬܝܘܼܬܹܗ ٢٠ ܣ ،
ܒܓܵܘܵܗ̇ ܕܐܲܪܥܵܐ ܒܢܝܼܠܗܘܿܢ ܦܬܵܐ ܡܩܲܒܝܼܠܵܐ ܕܐܸܣܟܸܡܵܐ ܐܘܼܪܟܹܗ ١٥ ܣ
ܘܦܬܝܘܼܬܹܗ ١٢ ܣ ܘܦܪܝܼܫܵܐ ܒܚܕܵܠܗܘܿܢ ܦܬܵܐ ، ܐܸܫܟܲܚ ܠܡܫܘܚܬܵܐ
ܕܦܬܵܐ .

٥ - ܡܫܘܚܬܵܐ ܕܩܝܡܬܵܐ ܡܬܠܬܵܐ ܐܘܼܪܟܵܐ ܕܓܢܒܹܗ ٣٦ ܣܡ ܘܪܘܼܡܹܗ ٨ ܣܡ ،
ܗܵܘܝܵܐ ܡܫܘܚܬܵܐ ܕܩܝܡܬܵܐ ܡܪܲܒܥܵܐ ، ܐܸܫܟܲܚ ܐܘܼܪܟܵܐ ܕܐܸܠܥܵܐ ܕܡܪܲܒܥܵܐ .

٦ - ܐܸܫܘ ܐܸܢ ܡܫܘܚܬܵܐ :
ܐܲܪܥܵܐ ܡܪܲܒܲܥܬܵܐ ܕܐܸܣܟܸܡܵܐ ܐܘܼܪܟܵܐ ܕܐܸܠܥܹܗ ١٥ ܣ .

ܐܘ ܐܪܥܐ ܡܬܚܝܬܐ ܕܐܫܬܐܣܬܗ ܢܘܓܪܗ ٢٠ ܡ ܘܦܬܝܘܬܗ ١٢ ܡ.

ܐܘ ܐܪܥܐ ܡܬܠܬܐ ܕܐܫܬܐܣܬܗ ܟܪܝܗ ٤٠ ܡ ܘܪܘܡܗ ١٠ ܡ.

٧. ܟܡܐ ܫܬܐܣܬܐ ܕܡܬܠܬܐ ܥܡܐ ܕܐܝܠܝܢ ܥܡܘܕܝܗ ١٥، ١٠، ٤ ܡ

ܘܪܘܡܗ ٢٢ ܡ، ܟܡܐ ܡܫܘܚܬܐ ܢܘܓܪܐ ܕܟܪܝܗ؟ ܘܟܡܐ ܡܫܘܚܬܐ ܚܕܝܪܗ؟

٨. ܡܫܚܬܐ ܕܐܪܥܐ ܡܬܚܝܬܐ ܕܐܫܬܐܣܬܗ ܢܘܓܪܐ ܕܐܠܟܗ ٢٥ ܡ،

ܒܐܝܠܗܘܢ ܕܩܢܝܒ ܠܗ، ܐܢ ܛܝܡܐ ܕܩܢܝܬܐ ܕܚܕ ܡܫܘܚܬܐ ٥٠٠، ٥

ܕܝܢܪܐ، ܟܡܐ ܕܝܢܪܐ ܛܝܡܐ ܕܩܢܝܬܐ؟

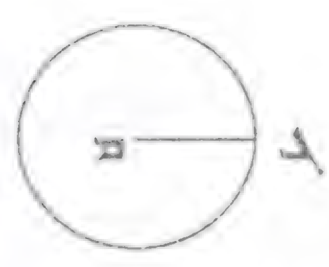
٩. ܟܡܐ ܡܬܚܝܬܐ ܕܐܫܬܐܣܬܗ ܢܘܓܪܗ ٥ ܡ ܘܦܬܝܘܬܗ ٤ ܡ ܦܪܝܫܐ

ܒܟܘܬܐ ܒܘܦܩܐ (ܟܪܝܐ) ܡܬܚܝܬܐ ܕܐܫܬܐܣܬܗ ܢܘܓܪܐ ܕܒܘܦܩܐ ٢٥ ܣܡ.

ܡܢܝܢ ܡܢܝܢܐ ܕܒܘܦܩܐ ܐܢܫܝܢ ܠܟܘܬܐ ܕܟܡܐ؟

## ٦. ٥ ܚܘܕܪܐ

ܠܐܫܛܚܐ ܢܩܝܦܐ ܒܚܘܪܐ ܗܘܐ ܠܩܝܦܐ ܕܚܕܪܐ



ܦܝܫ ܫܡܐ ܚܘܕܪܐ. ܡ ܢܘܩܙܬܐ ܝܠܗ ܚܕܝܪܬܐ

- ܟܠ ܢܘܩܙܬܐ ܡܢ ܢܘܩܙܬܐ ܕܚܘܕܪܐ ܪܚܝܩ ܟܠ ܡ

ܒܪܚܝܩܘܬܐ ܥܢܬܗ. ܡ ܦܝܫܐ ܫܡܝܬܐ ܡܨܥܬܐ ܕܚܘܕܪܐ.

- ܣܪܛܐ ܗܕܝܐ ܕܡܬܡܬܚܐ ܒܝܢ ܡܨܥܬܐ ܕܚܘܕܪܐ ܘܚܕ ܢܘܩܙܬܐ ܡܢ

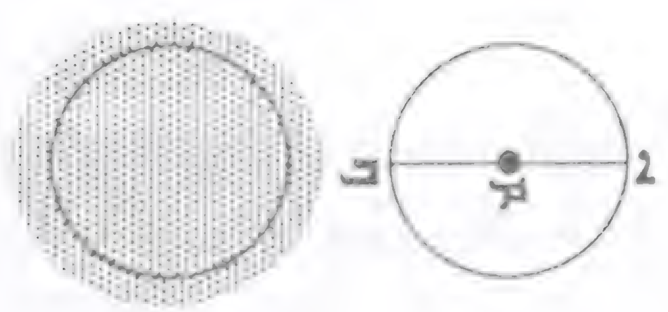
ܚܘܕܪܐ ܦܝܫ ܫܡܐ ܦܠܓܐ ܕܩܘܛܪܐ ܕܚܘܕܪܐ. (*)

- ܣܪܛܐ ܗܕܝܐ ܕܥܒܪܐ ܒܡܨܥܬܐ ܕܚܘܕܪܐ ܘܡܬܡܬܚܐ ܒܝܢ ܬܪܬܝܢ ܢܘܩܙܬܐ

ܥܠ ܚܘܕܪܐ ܦܝܫ ܫܡܐ ܩܘܛܪܐ ܕܚܘܕܪܐ.

ܡܫܘܚܬܐ ܕܩܘܛܪܐ ܕܚܘܕܪܐ = ܡܫܘܚܬܐ ܕܦܠܓܐ ܕܩܘܛܪܐ × ٢

ܚܘܕܪܐ : ܦܠܓܐ ܠܒܘܫܐ ܕܥܒܪܐ



ܝܠܗ ܠܗܠܟܐ ܕܘܟܬܐ ܡܢ ܢܘܩܙܬܐ:

ܕܘܟܬܐ ܕܢܘܩܙܬܐ ܝܠܗ ܚܘܕܪܐ

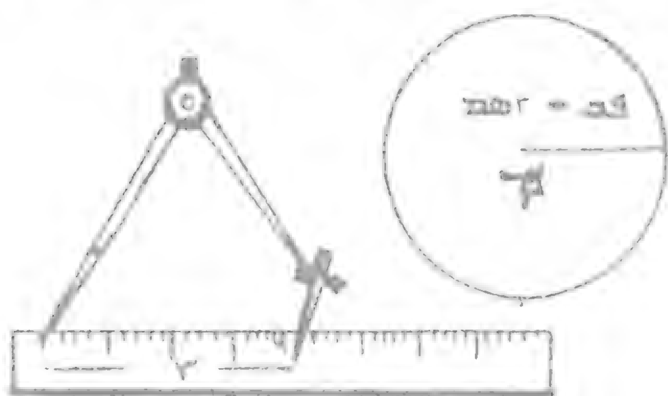
ܕܘܟܬܐ ܕܢܘܩܙܬܐ ܠܒܪ ܡܢ ܚܘܕܪܐ

ܘܕܘܟܬܐ ܕܢܘܩܙܬܐ ܕܚܘܕܪܐ.

ܚܘܼܦܵܐ ܕܟܘܼܪܟܵܐ ܕܢܘܼܩܙܵܐ ܝܠܹܗ ܚܘܼܕܪܵܐ ܟܠ ܟܘܼܪܟܵܐ ܕܢܘܼܩܙܵܐ
ܕܚܘܼܕܪܵܐ ܦܫܝ ܡܪܝܬܐ ( ܦܪܝܫܬܐ ܚܘܕܪܢܝܬܐ ) .

ܪܵܫܡܵܐ ܕܚܘܼܕܪܵܐ :

ܠܪܵܫܡܵܐ ܕܚܘܼܕܪܵܐ ܟܠ ܕܒܥܝܢ ܡܫܪܪܘܢ ܦܠܓܐ ܕܡܫܘܚܬܗ . ܐܝܟ
ܒܓܘܐ ܕܪܫܡܝܢ ܚܘܕܪܐ ܦܠܓܐ ܕܡܫܘܚܬܗ ٣ ܣܡ ܒܥܝܢ ܠܡܫܘܚܬܗ
ܕܚܘܕܪܐ ܝܠܗ ܢܘܩܙܐ ܡ ܒܝܢ ܦܬܘܚ ܠܦܪܓܠܐ ܦܬܝܚܐ ܡܠܐ
ܒܣܘܪܓܐ ܒܡܫܘܚܬܐ ٣ ܣܡ ܗܘܐ ܘܒܝܢ ܐܚܕܝܢ ܠܦܘܪܫܐ ܒܝܢ ܚܕ ܪܫܐ ܪܫܐ
ܕܦܪܓܠܐ ٣ ܣܡ ܐܝܟ ܕܝܠܗ ܡܚܘܝܐ .



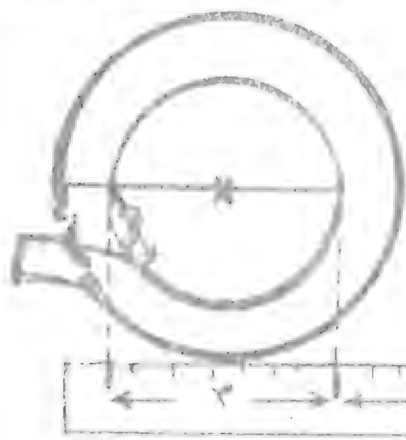
ܡܢ ܒܬܪ ܕܐܚܕ ܠܦܪܓܠܐ ܝܠܗ ܡ
ܘܪܫܡܝܢ ܚܘܕܪܐ ܘܗܘܐ ܗܘ ܚܘܕܪܐ
ܦܠܝܬܐ .

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* ܠܦܘܪܫܐ ܒܝܢ ܡܫܘܚܬܐ ( ܦܠܓܐ ܕܡܫܘܚܬܐ )
ܠܦܘܪܫܐ ܟܠ ܡܫܘܚܬܐ ܕܦܠܓܐ ܕܡܫܘܚܬܐ .
ܘܗܝ ܗܘܝܐ ܠܡܫܘܚܬܐ ( ܡܫܘܚܬܐ ) .
ܘܒܝܢ ܪܡܙܝܢ ܠܦܠܓܐ ܕܡܫܘܚܬܐ ( ܦܡ ) . ܘܠܡܫܘܚܬܐ ܕܡܫܘܚܬܐ ܒܪܡܙܐ ( ܡ ) .

ܚܕܝܪܐ ܕܚܘܕܪܐ :

ܘܗܕܟܐ ܕܚܕܝܪܐ ܕܚܘܕܪܐ ܝܠܗ ܚܘܕܪܐ ܕܗܘ ܒܟܠܗ ܕܒܢܝܐ ܦܬܝܚܬܐ
ܕܦܝܫ ܡܕܝܪ ܚܘܕܪܐ .
ܪܫܡܝܢ ܟܠ ܚܕ ܡܢ ܚܘܕܪܐ ܡܫܘܚܬܗ ٣ ܣܡ ܡܢ ܡܢ ܠܦܪܓܠܐ ܚܘܕܪܢܝܐ
ܗܕܐ ܒܬܪ ܚܘܕܪܐ ܡܢ ܡܕܝܢ ܚܕ ܕܒܪܐ
ܚܕܪܘܗܝ ، ܐܝܟ ܦܫܛܠܘܢ ܚܘܕܪܐ ܕܡܢܐ
ܒܡܫܘܚܬܐ ܕܡܫܘܚܬܐ ܒܫܘܐ ܕܚܘܕܪܐ ܕܡܢܐ
ܒܝܕ ܕܗܘ ܝܠܗ ܒܠܒܠܐ ܡܢ ܗܠܐ
ܝܠܗ ܕܡܫܘܚܬܐ ܕܚܘܕܪܐ .



ܗܝ̣ ܦܠܝܓܘܬܗ̇ ܚܕܝܪܐ ܕܝܚܕܐ ܠܩܛܪܐ ܕܚܘܕܪܐ ܟܡܝܐ ܠܡܢܝܢܐ ܩܘܪܒܐ ܡܢ ܡܢܝܢܐ (3،14)
* ܒܥܘܡ ܚܘܕܪܐ ܐܣܪܢܐ ܥܠ ܦܐܬܐ ܗܕܐ ܐܝܟ ܕܒܚܘܫܒܢܘܗܝ ، ܘܡܢܘܗܝ ܝܗܒܐ ܚܕܪܘܬܗ ، ܦܠܓܐ
ܩܛܪܐ ܕܝܚܕܐ (ܦܬܝܐ ܚܕܝܪܐ) ܥܠ ܩܛܪܐ ܒܫܘܐ ܕܒܕ ܦܢܝܐ ܠܦܠܓܐ ܩܘܪܒܐ ܠܦܠܓܐ ܒܚܕܝܪܐ ،
ܗܝ̣ ܡܢܬܐ ܕܟܡܝܐ ܚܕܐ ܐܣܪܢܐ ܘܦܘܫܩܐ ܠܡܕܪܫܐ ܘܡܢܝܢܐ ܒܫܘܡܠܝܐ ܒܚܕ ܚܕܐ
ܚܕܝܪܐ ܕܚܘܕܪܐ ܘܦܠܓܘܬܗ ܥܠ ܩܛܪܐ (ܒܣܘܦܐ ܕܫܘܡܠܝܐ ܒܡܣܐ)
ܦܠܓܐ ܕܦܠܝܓܘܬܐ ܒܗܘ̇ ܡܢܝܢܐ ܩܘܪܒܐ ܡܢ ܡܢܝܢܐ (3،14) ܘܦܬܝ ܡܢܐ ܐܘܪܐ ܡܢܝܢܐ ܕܝܠܗ
ܦܠܓܐ ܕܦܠܝܓܘܬܐ ܕܚܕܝܪܐ ܥܠ ܩܛܪܐ ܒ (ܦܣܡܐ ܠܐ ܡܫܠܡܢܝܬܐ) ܘܡܣܝܡܐ ܒܐܬܘܬܐ ܛ

$$\frac{\text{ܚܕܝܪܐ}}{\text{ܩܛܪܐ}} = \text{ܛ} = \frac{22}{7} = 3،14 \ \text{ܩܘܪܒܐܝܬ}$$

ܡܕܝܢ : ܚܕܝܪܐ ÷ ܩܛܪܐ = ܛ

ܚܕܝܪܐ ÷ ܩ = ܛ

ܚܕܝܪܐ = ܩ × ܛ

ܘܗܕܐ ܗ̇ܘܝܐ : $\text{ܩ} = \frac{\text{ܚܕܝܪܐ}}{3،14}$

ܛܘܦܣܐ (1) :

ܐܫܟܚ ܚܕܝܪܐ ܕܚܘܕܪܐ ܩܛܪܗ 6 ܣܡ :

ܫܪܝܐ :

ܚܕܝܪܐ ܕܚܘܕܪܐ = ܩܛܪܐ × ܦܣܡܐ ܛ

ܚܕܝܪܐ ܕܚܘܕܪܐ = 6 × 3،14

= 18،84 ܣܡ

ܛܘܦܣܐ (2) :

ܐܫܟܚ ܩܛܪܐ ܕܚܘܕܪܐ ܚܕܝܪܗ 31،40 ܣܡ .

ܫܪܝܐ :

$$\text{ܩܛܪܐ} = \frac{\text{ܚܕܝܪܐ}}{\text{ܦܣܡܐ ܛ}} = \frac{31،40}{3،14} = 10 \ \text{ܣܡ}$$

## ܕܘܪܫܐ (6 - 2)

1 - ܪܫܘܡ ܚܘܕܪܐ ܦܠܓܐ ܕܩܛܪܗ ܫܘܐ 4 ܣܡ .

2 - ܐܫܟܚ ܚܕܝܪܐ ܕܚܘܕܪܐ ܦܠܓܐ ܕܩܛܪܗ 5 ܣܡ .

٣ . ܐܫܟܚ ܚܘܕܪܐ ܕܡܛܠܬܐ ܕܐܪܥܐ ܚܘܕܪܢܝܬܐ ܩܛܪܗ ٣٠ ܡ .

٤ . ܡܪܟܒܬܗ ܡܪܕܝܬܐ ܚܕܪܬ ܕܚܕܐ ܥܓܠܬܐ ܚܘܕܪܢܝܬܐ ܦܠܓܐ ܕܩܛܪܗ ٢٠٠ ܡ
ܬܠܬܐ ܙܒܢܐ ، ܟܡܐ ܐܙܠܬ ܡܪܕܝܬܐ ܕܡܪܟܒܬܗ ؟

٥ . ܡܪܟܒܬܗܘܢ ܠܓܝܠܬܐ ܚܘܕܪܢܝܬܐ ܕܐܦܝܛܐ ܩܛܪܗ ٥٠ ܣܢܬܝܡܐ ܒܗܝܟܐ
ܓܝܪܬܐ ܕܚܕ ܣܢܬܐ ܡܝܠܗ (٥) ܕܩܝܠܐ ، ܟܡܐ ܕܓܝܪܬܐ ܗܘܐ ܓܝܪܬܐ
ܕܗܢܝܬܐ ؟

٦ . ܐܫܟܚ ܦܠܓܐ ܕܩܛܪܐ ܕܚܘܕܪܐ ܚܕܝܪܗ ( ٦٨ ܘ ٣٧ ) ܣܡ .

## ٦ . ٦ ܫܛܝܚܘܬܐ ܕܦܬܐ ܚܘܕܪܢܝܬܐ



ܐܢܗܘ ܦܬܐ ܚܘܕܪܢܝܬܐ ܕܦܠܓܬܗ ܠܡܢܘܬܐ ܙܥܘܪܬܐ ܡܢ ܡܢܘܬܐ ܫܘܝܐ
ܘܫܦܝܪ ܗܘܝܢ ١٦ ܡܢ ܡܢܘܬܗ ܐܝܟ ܦܬܐ ܘܡܣܕܪܝܢ ܒܣܕܪܐ
ܗܟܢܐ ܐܝܟ ܓܘ ܐܫܟܠܐ ܠܥܠ ܡܢܗ ܠܐܫܟܠܐ ܡܪܒܥ ܐܪܝܟܐ
ܡܕܪܝܟ ܦܬܗ ܗܘܐ ܦܠܓܐ ܕܚܕܪܐ ܕܚܘܕܪܐ ܘܪܘܡܗ ܗܘܐ ܦܠܓܐ
ܕܩܛܪܐ ܕܚܘܕܪܐ ܘܒܝܫ ܕܚܕܪܐ ܕܚܘܕܪܐ ܦܠܓ ܠܗܕܐ ܡܢܘܬܐ ܗܘܬ .
ܦܠܓܐ ܕܚܕܪܐ ܕܚܘܕܪܐ .

ܗܫܐ ܡܢ ܕܐܦ ܕܡܪܒܥ ܐܪܝܟܐ ܗܘܐ ܦܠܓܐ ܕܚܕܪܐ ܕܚܘܕܪܐ

ܫܛܝܚܘܬܐ ܕܦܬܐ = ܫܛܝܚܘܬܐ ܕܦܬܐ ܕܡܪܒܥ ܐܪܝܟܐ .

$= \frac{1}{2}$ ܚܕܪܐ ܕܚܘܕܪܐ × ܦܠܓܐ ܕܩܛܪܐ

$= \frac{1}{2} \times$ ܩܛܪܐ × ܦ × ܦܠܓܐ ܕܩܛܪܐ

ܫܛܝܚܘܬܐ ܕܦܬܐ ܚܘܕܪܢܝܬܐ = ܦܠܓܐ ܕܩܛܪܐ × ܦ × ܦܠܓܐ ܕܩܛܪܐ

= ܦܠܓܐ ܕܩܛܪܐ × ܦܠܓܐ ܕܩܛܪܐ × ܦ

| ܫܛܝܚܘܬܐ ܕܦܬܐ ܚܘܕܪܢܝܬܐ = ܡܪܒܥܐ ܕܦܠܓܐ ܕܩܛܪܐ × ܦ |
|---|

ܐܘ ܐܡܪܝܢ ܠܦܠܓܐ ܕܩܛܪܐ ܒܪܡܙܐ ܦܩ ܒܗܘܐ :

ܫܛܝܚܘܬܐ ܕܦܬܐ ܚܘܕܪܢܝܬܐ = $ܦܩ^2$ × ܦ

ܟܕ ܛ = ٣،١٤ ܐܘ ܛ = $\frac{٢٢}{٧}$

ܡܬܠܐ: ܐܢ ܗܘܐ ܢܘܪܓܐ ܕܦܠܓܐ ܕܩܛܪܐ ١٤ ܣܡ، ܟܡܐ ܗܘܐ ܫܛܝܚܘܬܐ ܕܦܢܝܬܐ ؟

ܫܪܝܐ:

ܫܛܝܚܘܬܐ ܕܦܢܝܬܐ ܚܘܕܪܢܝܬܐ = ܦܩ² × ܛ = ١٤ × ١٤ × $\frac{٢٢}{٧}$ = ٦١٦ ܣܡ²

## ܕܘܪܫܐ ( ٦ . ٣ )

١ . ܐܢ ܦܠܓܐ ܕܩܛܪܐ ܕܓܢܬܐ ܚܘܕܪܢܝܬܐ ܗܘܐ ٤٢ ܡ، ܟܡܐ ܗܘܐ ܫܛܝܚܘܬܐ ܕܓܢܬܐ ؟

٢ . ܐܢ ܚܘܕܪܐ ܕܦܢܝܬܐ ܚܘܕܪܢܝܬܐ ٦٦ ܡ، ܟܡܐ ܗܘܐ ܫܛܝܚܘܬܐ ܕܗܕܐ ܦܢܝܬܐ ܚܘܕܪܢܝܬܐ ؟

٣ . ܒܝܬ ܣܚܝܐ ܚܘܕܪܢܝܐ ܩܛܪܗ ١٠٠ ܡ، ܟܡܐ ܗܘ ܛܝܡܐ ܕܣܝܓܐ ܕܡܬܒܥܐ ܠܗ ܠܒܝܬ ܣܚܝܐ ܒܥܒܕܐ ܐܢ ܛܝܡܐ ܕܟܠ ܡܝܬܪܐ ܡܢܗ ٥٠٠ ܘ ٤ ܕܝܢܪܐ ؟

٤ . ܦܢܝܬܐ ܕܡܠܥܒܐ ܚܘܕܪܢܝܬܐ ܕܐܣܛܕܝܘܢ ܚܘܕܪܗ ٤٣،٩٦ ܡ، ܟܡܐ ܗܘܐ ܦܠܓܐ ܕܩܛܪܐ ؟ ܘܟܡܐ ܗܘܐ ܫܛܝܚܘܬܗ ؟

٥ . ܓܢܬܐ ܚܘܕܪܢܝܬܐ ܕܐܣܛܕܝܘܢ، ܐܢ ܟܪܝܟ ܚܘܕܪܗ ܕܓܢܬܐ ܫܒܝܠܐ ܒܦܬܝܐ، ܘܐܢ ܗܘܐ ܚܘܕܪܐ ܕܝܠܗ ܥܡ ܫܒܝܠܐ ١٣٢٠ ܡ، ܟܡܐ ܗܘܐ ܚܘܕܪܐ ܘܫܛܝܚܘܬܐ ؟

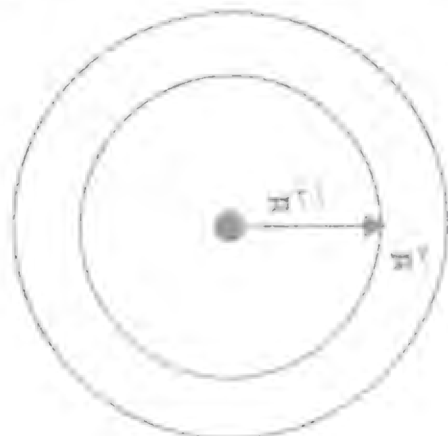
٦ . ܒܝܬ ܪܗܛܐ ܕܡܫܝܚܬܐ ܕܐܣܛܕܝܘܢ ܐܘܪܟܗ ١٤٠ ܡܝܬܪܐ ܘܦܬܝܘܬܗ ٥٦ ܡ ܘܐܝܟ ܕܚܙܐ ܦܠܓܘܬܐ ܕܚܘܕܪܐ ܐܝܟ ܕܠܘ ܐܣܛܕܝܘܢ ܥܬܝܩܐ، ܟܡܐ ܗܘܐ ܫܛܝܚܘܬܐ ܕܗܕܐ ܒܝܬ ܪܗܛܐ ؟

٥٦ ܡ　　٥٦ ܡ

← ١٤٠ ܡ →

٧ - ܚܘܝܕܐ ܕܚܘܕܪܐ ܗܘܐ ١٣٢ ܣܡ ، ܐܫܟܚ ܫܛܝܚܘܬܗ .

٨ - ܐܝܟܐ ܚܘܕܪܢܝܬܐ ܕܐܣܝܡܐ ܦܬܝܐ ܕܡܫܚܬܗ ٢١ ܣ ܘܦܘܫܚܬܗ ܡܢ ܠܒܪ ܡܬܝܒܪܐ ܡܫܘܚܬܐ ܦܫܝܛܘܬܗ ܗܕܐ ܡܢܛܪܐ ، ܐܫܟܚ ܠܫܛܝܚܘܬܐ ܕܡܬܝܒܪܐ .





# ܦܣܘܩܐ ܫܒܝܥܝܐ

## ܡܦܬܚܐ

[ ٧ - ١ ] ܡܦܠܚ ܫܘܠܡܐ ܡܝܬܪܝܐ ( ܕܡܦܠܚ ܣܘܦܐ )

[ ٧ - ٢ ] ܣܘܦܐ

[ ٧ - ٣ ] ܚܕܝܘܬܐ ܕܣܘܦܐ

[ ٧ - ٤ ] ܡܣܩܬܐ ܕܡܝܠܐ

[ ٧ - ٥ ] ܝܘܬܪܐ ܡܣܩܬܐ ܠܡܝܠܐ

[ ٧ - ٦ ] ܠܘܚܐ ܕܡܦܠܚ ܫܘܠܡܐ ܡܝܬܪܝܐ

[ ٧ - ٧ ] ܠܘܚܐ ܕܣܘܦܐ

# ܦܫܘܛܐ ܥܒܝܬܐ

## ܡܟܥܒܐ

ܘܪܘܟ ܒܐܣܟܡܐ ܕܠܗ ܦܐܬܐ .. ܚܙܝܬ ܕܟܠ ܚܕܐ ܡܪܒܥܬܐ ، ܐܘ ܡܣܬܚܬܐ ، ܐܘ ܡܬܠܬܐ ..

١

٢

ܟܠ ܚܕܝܕ ܠܡܪܒܥܬܐ ܘܡܣܬܚܬܐ ܘܐܝܟ ܐܣܟܡܐ ܦܠܝܓ ܥܠ ܬܪܝܢ ܦܠܓܘܬܐ
ܢܘܣܒܐ ܕܟܠ ܚܕܐ ܥܒܝܕܐ . ܚܘܠܛ ܚܘܦܐ ܠܗ ܐܪܐ .
ܘܥܠ ܡܐܝܢ ܕܚܘܠ ܚܘܦܐ ܠܗ ܐܪܐ ܦܐܬ ܡܪܐ ܡܟܥܒܐ ܚܕܝܢ ܒܬܐ ܡܟܥܒܐ .
ܘܠܟܠ ܡܟܥܒܐ ܕܠܬܐ ܦܐܬ ܡܢ ܡܟܥܒܐ ܐܚܪܢܐ .
ܚܙܝ ܕܐܝܟ ܐܣܛܘܠܐ ܐܝܬ ܠܗ ܐܫܬܐ ܦܐܬܐ ܘܥܠ ܚܕ ܡܢܗܘܢ ܟܝܢܐ ܡܪܒܥܬܐ .
ܘܡܢܗܘܢ ܥܒܕܬ ܕܝܠܗ ܡܘܩܕܐ ܘܐܝܟ ܣܘܠܩܐ ܐܝܟ ܠܗ ܐܫܬܐ ܦܐܬܐ ܥܠ ܚܕ ܡܢܗܘܢ ܟܝܢܐ ܡܣܬܚܬܐ ، ܘܝܠܗ ܡܟܥܒܐ .
ܘܡܢܗܘܢ ܥܒܕܬ ܕܝܠܗ ܡܣܬܚ ܫܟܝܚܐ ܒܓܘܢܐ ܘܐܝܟ ܡܟܥܒܐ ܐܚܪܢܐ ܟܠ ܚܕܐ ܡܟܥܒܐ ܐܝܟ ܟܬܒܐ ܕܩܦܐ ܘܨܢܕܘܩܐ ܘܩܘܛܐ ، ܘܠܒܘܫܐ ܘܬܪܥܐ .

## ٧ - ١ ܡܛܒܝܚ ܣܛܝܚܐ ܡܪܘܒܥܐ ( ܕܡܘܬ ܩܘܦܣܐ )

ܩܘܠܒܐ ܕܠܒܢܐ ܘܩܘܠܒܐ ܕܡܕܝܢܬܐ ܘܡܟܬܒܐ ܡܟܬܒܐ ܗ̈ܢܐ ܐܝܟ ܕܐܢܘܢ ܕܟܠܗܝܢ ܡܫܡܫܢܐ . ܘܡܬܚܙܝܢ ܕܗܠܝܢ ܕܟܠ ܡܢ ܕܐܢܝܢ ܡܬܩܪܝܢ ܩܢܝܢ ܡܛܒܝܚ ܣܛܝܚܐ ܡܪܘܒܥܐ

ܐܦ ܩܘܠܒܐ ܕܝܠܗ ܕܘܟܢ ܗܘ ܕܡܬܒܢܝܢ ܠܗܘܢ ܕܠܒܢܘܬܐ ܚܕܐ ܗܘܐ ܕܩܝܡ ܥܠ ܐܪܥܐ

ܕܒܠܗ ܣܛܝܚܐ ܡܛܒܝܚܐ ܡܘܪܟܗ $\overline{ܐ ܒ}$ ܘܦܬܝܘܬܗ $\overline{ܐ ܠ}$

ܠܡܛܒܝܚ ܣܛܝܚܐ ܡܪܘܒܥܐ ܐܝܬ ܦܐܬܐ ܥܠ ܦܐܬܐ ܕܝܠܗ ܡܛܒܝܚܐ ܘܠܡܛܒܝܚ ܣܛܝܚܐ ܡܪܘܒܥܐ ܟܠܗ ܣܛܪܐ ܦܐܬܐ ܕܩܝܡܝܢ ܥܠܘܗܝ ܘܚܕܡܘܬܟܠܗ ܟܠܐ ܐܝܟܘܬܐ .

ܘܩܢܝܢ ܡܛܝܐ ܠܘܚܡܐ ܡܢ ܣܓܝܐܐ . ܟܠܐ : ܕܡܘܬܐ ܕܡܛܒܝܚ ܣܛܝܚܐ ܡܪܘܒܥܐ ܠܗ ܐܣܟܡܐ ܠܬܚܬܐ ܠܡܛܒܝܚ ܣܛܝܚܐ ܡܪܘܒܥܐ ܢܘܦܠܐ ܟܠܐ ܛ ܗ ܘ ܝ :

ܡܘܪܟܐ $\overline{ܛ ܝ}$ ،

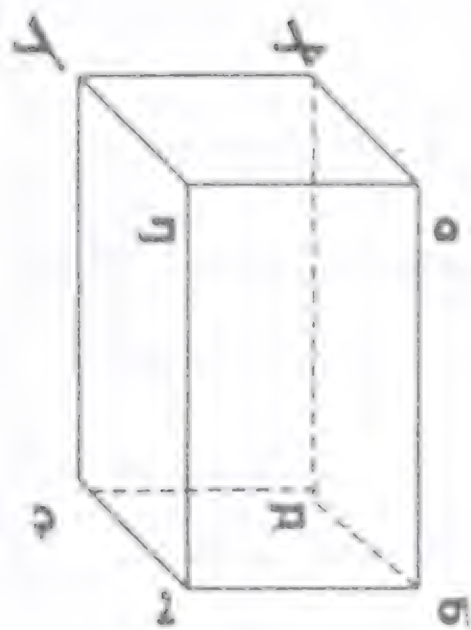
ܦܬܝܘܬܐ $\overline{ܛ ܗ}$

ܪܘܡܐ $\overline{ܛ ܕ}$

ܐܘ $\overline{ܒ ܘ}$ ܐܘ $\overline{ܐ ܗ}$ ܐܘ $\overline{ܠ ܝ}$



ܠܡܛܒܝܚ ܣܛܝܚܐ ܡܪܘܒܥܐ ܬܠܬܐ ܪܘܚܩܐ ܘܗܢܘܢ ܡܘܪܟܐ ܘܦܬܝܘܬܐ ܘܪܘܡܐ



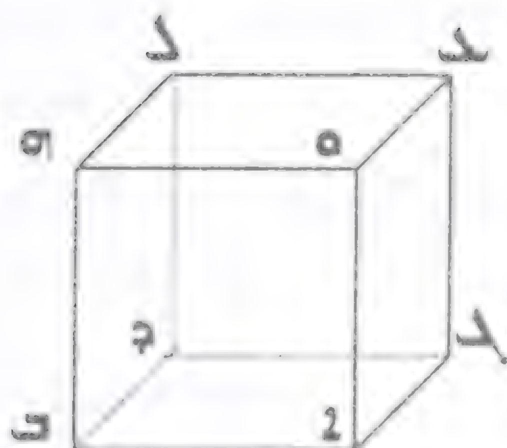

ܡܬܠܒܪܢܘܬܐ :

ܐܢ ܚܒܪܢ ܦܢܝ̈ܐ ܐ ܕ ܚ ܗ ܠܦܢܝ̈ܐ
ܦܢܝ̈ܐ ܒ ܗ ܘ ܙ ܕܢܗܘܘܢ ܢܐܠܘ
ܡܬܝܠܕ ܓܫܡܐ ܡܩܘܢܢܐ ܕܗܘܐ
ܣܘܪܛܐ ܚ̄ ܗ̄ ، ܡܬܝܠܕ ܒܗܘܐ-
ܣܘܪܛܐ ܚ̄ ܗ̄ ، ܦܫܝܛܘܬܐ ܐܗ̄
ܘܡܫܘܚܬܐ ܐ ܒ̄ ܐܘ ܗ ܘ̄ ܐܘ ܚ ܙ̄ ܐܘ ܕ ܓ̄

ܢܦܩܬܐ :

ܐܫܟܚ ܒ ܓ ܕ ܐ ܦܢܝ̈ܐ ܢܝܫ ܠܣܘܪܛܐ ܘܦܫܝܛܘܬܐ ܘܡܫܘܚܬܐ .

## ٧ ـ ٢ ܡܟܥܒܬܐ




ܐܝܟܢܐ ܕܐܡܪܢܐ ܗܢܘ ܡܟܥܒܬܐ ܘܣܘܝܐ ܗܘܐ
ܕܗܠܝܢ ܡܬܝܠܕ ܓܫܡܐ ܡܩܘܢܢܐ ܐܠܐ ܟܠܗܘܢ
ܦܐܬܘܗܝ ܐܝܬ ܡܪܒܥܐ ܫܘܝܐ ܒܫܘܝܘܬܐ
ܣܘܪܛܐ ܕܡܟܥܒܬܐ ܫܘܝܐ ܗܝ ܗܘܐ ܘܦܝܫ ܣܘܪܛܐ
ܘܦܫܝܛܘܬܐ ܘܡܫܘܚܬܐ ܫܘܝܐ ܗܝ .

ܐܝܟ ܕܗܐ ܒܣܘܦ ܕܡܟܥܒܬܐ ܐ ܒ̄ ، ܐ ܓ̄ ، ܓ ܕ̄ ، ܕ ܒ̄ ، ܓ ܓ̄ ، ܕ ܓ̄ ، ܒ ܗ̄
ܫܘܝܐ ܗܝ ..

ܐܝܟ ܕܗܐ ܠܗ ܕܐܡܪܬܐ ܕܡܟܥܒܬܐ ܦܐܬܐ ܡܪܒܥܬܐ ܫܘܐ ܡܫܘܚܬܐ ܦܐܬܐ
ܐܚܪܢܐ ܕܡܟܥܒܬܐ .

ܡܟܥܒܬܐ ܗܠܝܢ ܡܬܝܠܕ ܓܫܡܐ ܡܩܘܢܢܐ ܣܘܪܛܗ ܫܘܝܐ .

## ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ ܘܟܠܢܝܬܐ ܠܡܥܒܕ ܡܛܠܫܐ ܡܓܪܘܢܐ :

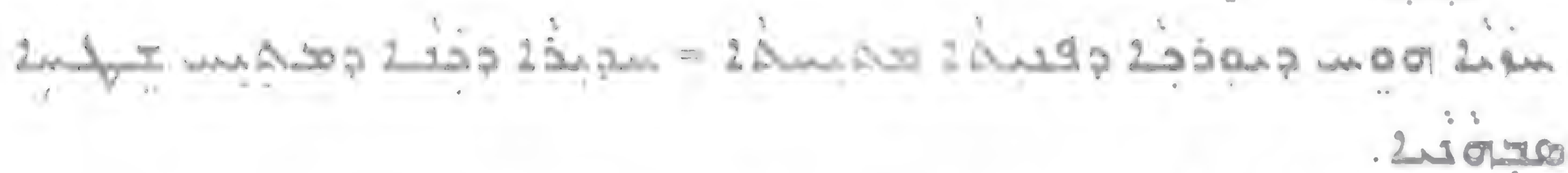
ܢܥܒܕ ܢܨܠܝ ܡܥܒܕ ܡܛܠܫܐ ܡܫܘܪܝܐ ܡܢ ܩܪܢܐ ܡܘܪܝ ( ܐܝܟ ܟܘܠܟܐ ܕܢܓܕܒ ܓܘܫܡ ܩܒܝܠ ܕܩܪܢܐ ) ܘܢܦܠܒ ܠܓܒܗ ܒܠܒܬܐ ܘܡܫܘܚܬܐ .

ܘܢܦܓܕܝܣ ܦܘܪܫܐ ܦܐܬܐ ܡܢ ܚܕܐ ܦܐܬܐ ܘܢܦܫ ܠܗ ܢܥܒܕܐ ܕܢ ܢܣܠܦ ܠܦܐܬܐ ܡܫܝܚܬܐ ܓܠܝܐ ܒܐܣܟܡܐ ܕܐܬܐ :

ܦܬܝܘܬܐ ܐܘܪܟܐ

ܪܘܡܐ ܪܘܡܐ ܪܘܡܐ

ܦܬܝܘܬܐ ܐܘܪܟܐ



ܚܙܝܢ ܗܘܝܢ ܕܐܘܪܟܐ ܕܦܐܬܐ ܡܫܝܚܬܐ = ܚܘܕܪܐ ܕܦܐܬܐ ܕܡܥܒܕ ܡܛܠܫܐ ܡܓܪܘܢܐ.

ܘܦܬܝܘܬܗ ܗܝ ܪܘܡܐ ܕܡܥܒܕ ܡܛܠܫܐ ܡܓܪܘܢܐ ܘܟܢ

ܫܛܝܚܘܬܐ ܕܦܐܬܐ ܡܫܝܚܬܐ = ܐܘܪܟܐ × ܦܬܝܘܬܐ .

> ܗܟܘܐ : ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ ܠܡܥܒܕ ܡܛܠܫܐ ܡܓܪܘܢܐ
> = ܚܘܕܪܐ ܕܦܐܬܐ × ܪܘܡܐ

ܡܬܠܐ ( ١ ) :

ܟܘܠܟܐ ܐܘܪܟܐ ܘܦܬܝܘܬܐ ܕܝܠܗ ١٠ ܣܡ ، ٧ ܣܡ ܘܪܘܡܗ ٨ ܣܡ ، ܟܡܐ ܗܝ ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ ܕܟܘܠܟܐ ؟

٨ ܣܡ

٧ ܣܡ

١٠ ܣܡ

ܫܪܝܐ : ܐܝ ܦܫܝܛܘܬ ܠܡܠܒܢܐ ܒܝܬܗ :
٨ ܣܡ ٧ ܣܡ ١٠ ܣܡ ٧ ܣܡ ١٠ ܣܡ

ܫܛܝܚܘܬܐ ܕܣܛܪܐ ܓܒܢܝܬܐ ܠܡܢܫܘܪ ܣܛܪܐ ܡܣܬܘܝܐ

= ܫܛܝܚܘܬܐ ܕܦܐܬܐ ܡܫܘܚܬܐ

= ܚܘܕܪܐ ܕܡܫܘܚܬܐ × ܦܫܘܛܐ ܕܡܫܘܚܬܐ

= ܣܟܘܡܐ ܕܦܐܬܐ × ܪܘܡܐ

ܒܗܕ ܡܢܫܘܪ ܣܛܪܐ ܡܣܬܘܝܐ :

= ٨ × ( ١٠ + ٧ + ١٠ + ٧ )

= ٨ × ٣٤

= ٢٧٢ ܣܡ² ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ

ܦܘܫܩܐ ( ٢ ) :

ܐܫܟܚ ܠܫܛܝܚܘܬܐ ܓܒܢܝܬܐ ܠܐܘܢܐ ܒܐܣܟܝܡܐ ܡܢܫܘܪ ܣܛܪܐ ܡܣܬܘܝܐ
ܚܘܕܪܗ ٢٠ ܡ ܘܦܫܘܛܘܬܗ ١٥ ܡ ܘܪܘܡܘܬܗ ٤ ܡ .

ܫܪܝܐ : ܣܟܘܡܐ ܕܦܐܬܐ = ٢ × ( ٢٥ + ١٥ )

= ٢ × ٤٠ = ٨٠ ܡ

ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ = ܣܟܘܡܐ ܕܦܐܬܐ × ܪܘܡܐ

= ٨٠ × ٤ = ٣٢٠ ܡ²

## ܫܛܝܚܘܬܐ ܟܠܢܝܬܐ ܠܡܢܫܘܪ ܣܛܪܐ ܡܣܬܘܝܐ :

| ܫܛܝܚܘܬܐ ܟܠܢܝܬܐ ܠܡܢܫܘܪ ܣܛܪܐ ܡܣܬܘܝܐ |
| --- |
| = ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ + ܫܛܝܚܘܬܐ ܕܬܪܬܝܢ ܒܣܝܣ |

ܦܘܫܩܐ ( ٣ ) :

ܐܫܟܚ ܠܫܛܝܚܘܬܐ ܟܠܢܝܬܐ ܠܡܠܒܢܐ ܚܘܕܪܗ ٨ ܣܡ ܘܦܫܘܛܘܬܗ ٦ ܣܡ
ܘܪܘܡܘܬܗ ٥ ܣܡ .

ܡܬ̈ܠܐ :

ܐ݇ ܦܫܘܛ ܠܡܘܠܒܐ ܘܡܫܘܚ ܠܗ ܟܡ ܦܝܫ ܡܪܘܒܥܐ ܕܪܒܝܥ :

ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ = ٢ × ( ٦ + ٨ ) × ٥

= ٢ × ١٤ × ٥ = ١٤٠ ܣܡ$^{٢}$

ܫܛܝܚܘܬܐ ܕܩܥܪܐ = ٦ × ٨ = ٤٨ ܣܡ$^{٢}$

ܫܛܝܚܘܬܐ ܕܩܥܪ̈ܘܗܝ ܬܪܝܢ = ٤٨ × ٢ = ٩٦ ܣܡ$^{٢}$

ܫܛܝܚܘܬܐ ܟܠܢܝܬܐ = ١٤٠ + ٩٦ = ٢٣٦ ܣܡ$^{٢}$

## ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ ܘܟܠܢܝܬܐ ܠܩܘܒܐ :

ܠܩܘܒܐ ܐܝܬ ܕܝܕܥܝܢ ܐܫܬܐ ܦܐܬܐ ܫܘܝܐ ܘܟܠ ܦܐܬܐ ܗ̇ܝ ܦܝܫܐ ܡܪܒܥܬܐ.

ܫܛܝܚܘܬܗ ܓܒܢܝܬܐ = ܟܢܫܐ ܕܫܛܝܚܘܬܐ ܕܐܪܒܥܐ ܦܐܬܐ

ܘܫܛܝܚܘܬܐ ܟܠܢܝܬܐ = ܟܢܫܐ ܕܫܛܝܚܘܬܐ ܕܐܫܬܐ ܦܐܬܘܗܝ.

ܐ݇ ܢܗܘܐ ܕܐܪܟܐ ܕܩܘܒܐ ܗܘܐ ( ܗ ) ܡܢ ܚܕܝܘܬܐ ܕܝܘܪܟܐ

ܫܛܝܚܘܬܐ ܕܚܕܐ ܦܐܬܐ = ܗ × ܗ = ܗ$^{٢}$ ܡܢ ܚܕܝܘܬܐ ܡܪܒܥܬܐ.

ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ = ܫܛܝܚܘܬܐ ܕܐܪܒܥܐ ܦܐܬܘܗܝ.

ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ ܠܩܘܒܐ = ٤ × ܗ$^{٢}$ = ٤ ܗ$^{٢}$ ܡܢ ܚܕܝܘܬܐ ܡܪܒܥܬܐ.

ܫܛܝܚܘܬܐ ܟܠܢܝܬܐ = ܫܛܝܚܘܬܐ ܕܐܫܬܐ ܦܐܬܘܗܝ.

ܫܛܝܚܘܬܐ ܟܠܢܝܬܐ ܕܩܘܒܐ = ٦ × ܗ$^{٢}$ = ٦ ܗ$^{٢}$ ܡܢ ܚܕܝܘܬܐ ܡܪܒܥܬܐ.

ܛܘܦܣܐ ( ٤ ) :

ܟܡܐ ܝܠܗ ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ ܘܟܠܢܝܬܐ ܕܩܘܒܐ ܐܘܪܟܐ ܕܐܠܥܗ ١٢ ܣܡ ؟

ܫܪܝܐ :

ܫܛܝܚܘܬܐ ܕܚܕܐ ܦܐܬܐ = ١٢ × ١٢ = ١٤٤ ܣܡ$^{2}$

ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ = ٤ × ܫܛܝܚܘܬܐ ܕܚܕܐ ܦܐܬܐ

= ٤ × ١٤٤ = ٥٧٦ ܣܡ$^{2}$

ܫܛܝܚܘܬܐ ܟܠܢܝܬܐ = ٦ × ܫܛܝܚܘܬܐ ܕܚܕܐ ܦܐܬܐ

= ٦ × ١٤٤ = ٨٦٤ ܣܡ$^{2}$

ܛܘܦܣܐ ( ٥ ) :

ܫܛܝܚܘܬܐ ܟܠܢܝܬܐ ܠܩܘܒܐ ١٥٠ ܣܡ$^{2}$ ، ܟܡܐ ܝܠܗ ܐܘܪܟܐ ܕܐܠܥܐ ܕܩܘܒܐ ؟

ܫܪܝܐ :

ܒܕ ܩܘܒܐ ܐܝܬܠܗ ܐܫܬܐ ܦܐܬܘܬܐ ܫܘܝܐ :

ܫܛܝܚܘܬܐ ܕܚܕܐ ܦܐܬܐ = ١٥٠ ÷ ٦ = ٢٥ ܣܡ$^{2}$

ܘܒܕ ܟܠ ܦܐܬܐ ܡܢ ܦܐܬܘܬܐ ܕܩܘܒܐ ܡܪܒܥܬܐ ܝܠܗ :

ܐܘܪܟܐ ܕܐܠܥܐ = ܫܪܫܐ ܬܪܝܢܝܐ ܠܡܢܝܢܐ ٢٥

ܗܟܝܢ ܐܘܪܟܐ ܕܐܠܥܐ = ٥ ܣܡ

## ܕܘܪܫܐ ( ٧ - ١ )

١ . ܟܡܐ ܝܠܗ ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ ܘܟܠܢܝܬܐ ܕܩܘܒܐ ܐܘܪܟܐ ܕܐܠܥܗ ١٠ ܣܡ ؟

٢ . ܐܢ ܫܛܝܚܘܬܐ ܟܠܢܝܬܐ ܕܩܘܒܐ ٦٠٠ ܣܡ$^{2}$ ، ܟܡܐ ܝܠܗ ܫܛܝܚܘܬܐ ܓܒܢܝܬܐ ܠܗܘ ܩܘܒܐ ؟

٣ . ܐܝܬܐ ܒܡܕܪܫܬܐ ܕܡܬܝܢ ܫܛܝܚܐ ܐܘܪܟܗ ( ٥ ) ܡܝܬܪܐ ܘܦܬܝܘܬܗ ( ٤ ) ܡܝܬܪܐ ܘܪܘܡܘܬܗ ( ٣ ) ܡܝܬܪܐ . ܚܫܘܒ ܫܛܝܚܘܬܗ ܓܒܢܝܬܐ ܒܠܝ ܫܛܝܚܘܬܐ ܕܐܪܥܐ .

٤ . ܡܓܝܣ ܥܠܝܡܐ ܡܒܘܢܝ ܕܡܘܬܗ ٧ ܫܢ ܘܥܕܡܐ ٥ ܫܢ ، ٦ ܫܢ ،
ܐܬܝܐ ܥܠܝܡܘܬܐ ܕܥܠܝܡܐ ܓܒܪܐ ܘܡܠܟܘܬܐ ܗܝ ܠܗ .

٥ . ܝܠܝܕܘܬܐ ܕܟܠ ܚܕܐ ܦܠܓܘܬܗ ܡܕܢܚܐ ܝܘܠܦܢܐ ܕܡܢ ܐܠܗܐ ٢٠ ܫܢ .
ܫܢܝܢ ܥܠܝܡܘܬܐ ܕܝܠܝܕܘܬܐ ܡܫܟܚܬܐ ܠܗ ܡܬܪܒܝܢܗ .

## ٧ . ٣ ܚܕܘܬܐ ܕܫܒܝܐ

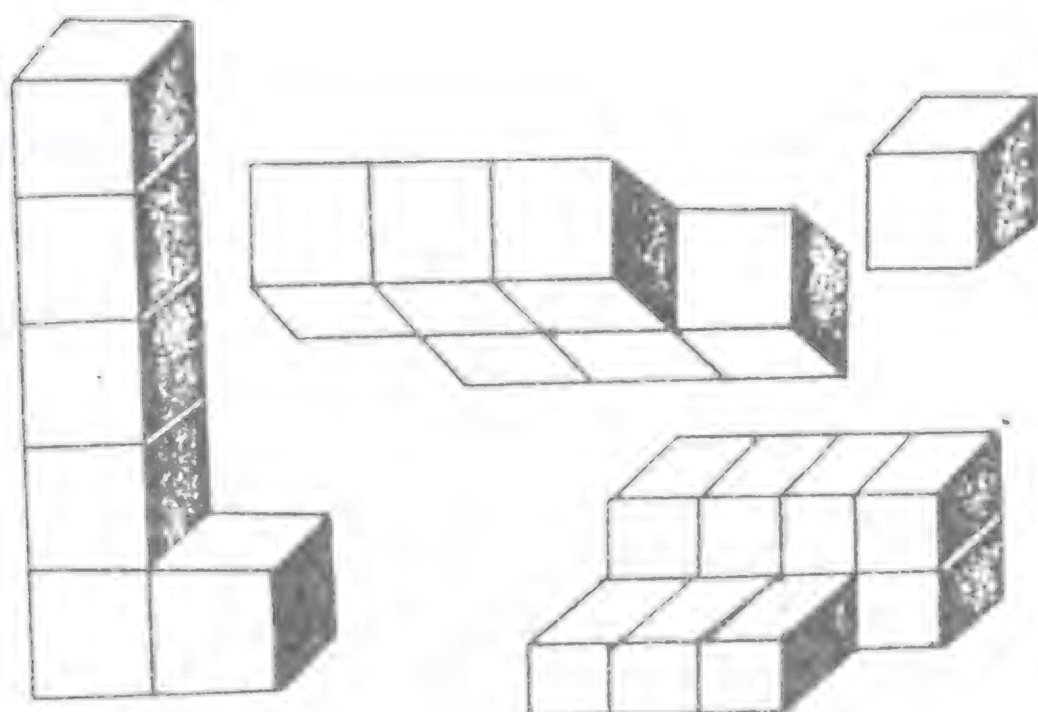
* ܡܫܟܚ ܠܗ ܡܥܒܕܢܘܬܐ ܕܝܘܠܦܢܐ ܚܕܘܬܐ ܕܡܫܝܚܘܬܐ ܐܝܟ ܡܬܠܡܕܐ
ܘܡܫܬܘܫܛܐ ܘܡܬܠܡܕܢܘܬܐ ܘܥܕܬܐ .

* ܘܡܫܟܚ ܠܗ ܡܥܒܕܢܘܬܐ ܕܥܠܝܡܘܬܐ ܚܕܘܬܐ ܡܕܢܚܝܬܐ . ܦܪܬܐ
ܡܕܢܚܝܬܐ ܝܘܠܦܢܐ ܕܐܠܗܐ ܚܕܐ ܚܕܘܬܐ ܕܝܘܠܦܢܐ . ܐܦ ܝܘܠܦܢܐ ܕܐܠܗܐ
ܕܡܕܢܚܐ ܕܚܕܘܬܐ ܡܬܠܡܕܐ ܒܗܘܢ ܚܕܘܬܐ ܕܥܠܝܡܘܬܐ ܡܬܠܡܕܐ
ܡܕܢܚܐ ܘܗܕܐ .

ܘܗܳܠܐ ܡܫܘܚܬܐ ܕܓܫܡܐ ܡܬܟܝܠܐ ܚܕܝܘܬܐ ܕܝܠܗ ܡܩܦܩܦܬܐ ܐܝܟ ܚܕܐ ܚܕܝܘܬܐ ܕܡܘܪܟܐ ، ܐܝܟ ܗܘܐ ܟܠ ܩܘܒܬܐ ܡܢ ܩܘܒܝܐ ܘܡܬܢܣܒܐ ܕܓܕܠܐ ܡܢܗܘܢ ܠܡܬܚ ܦܬܝܐ ، ܡܫܘܚܬܐ ܕܓܫܡܐ ܕܠܡܬܚ ܠܐ ܗܘܝܐ ܐܠܐ ܠܡܢܝܢܐ ܕܩܘܒܝܐ .

ܚܙܝ ܠܡܬܠܐ ܕܐܬܐ :

ܡܫܘܚܬܐ ܕܓܫܡܐ = ٦ ܚܕܝܘܬܐ ܡܩܦܩܦܬܐ .



ܡܫܘܚܬܐ ܕܓܫܡܐ = ١١ ܚܕܝܘܬܐ ܡܩܦܩܦܬܐ . ܡܫܘܚܬܐ ܕܓܫܡܐ = ٩ ܚܕܝܘܬܐ ܡܩܦܩܦܬܐ .

ܐܠܦܬܐ ܕܠܗ ܡܢܘܢ ܕܡܫܚܝܬ ܓܫܡܐ ܕܠܡܬܚ ܕܟܝܢܐ ܠܟܠܗ ܒܡܘܪܟܐ ܒܗܢܐ .



ܓܫܡܐ ܕܡܬܚܝܐ = ...... ܚܕܝܘܬܐ ܡܩܦܩܦܬܐ ܓܫܡܐ ܕܡܬܚܝܐ = ...... ܚܕܝܘܬܐ ܡܩܦܩܦܬܐ

ܟܝܠܐ ܕܡܟܥܒܐ = ............ ܚܕܝܘܬܐ ܡܟܥܒܬܐ.

* ܡܢ ܚܕܝܘܬܐ ܕܟܝܠܐ ܡܘܦܠܚܐ ܗܝ ܣܢܬܝܡܝܛܪܐ ܡܟܥܒܐ. ܘܗܝ:
ܣܘܦܐ ܡܪܒܥܐ ܕܨܠܥܝܗ ܚܕ ܣܢܬܝܡܝܛܪܐ.

ܘܡܢ ܚܕܝܘܬܐ ܐܚܪܢܝܬܐ ܡܝܛܪܐ ܡܟܥܒܐ ܗܝ ܣܘܦܐ ܡܪܒܥܐ ܕܨܠܥܝܗ ܚܕ ܡܝܛܪܐ.

ܘܐܝܬ ܚܕܝܘܬܐ ܐܚܪܢܝܬܐ ܒܬܪ ܕܒܪܝܗ.

ܘܥܠ ܟܡܝܘܬܐ ܕܡܫܘܚܬܐ ܕܟܝܠܐ ܡܫܬܚܠܦ ܡܢܝܢܐ ܕܐܝܟ ܚܕܝܘܬܐ ܕܡܫܬܚܠܦܐ ܠܗܘܢ.

ܐܢ ܢܟܝܠܐ ܐܡܪܢܢ ܕܟܝܠܐ ܕܩܘܫܐ ܗܢܘ
٢٤ܣܡ ܡܟܥܒܬܐ ܟܠܗܘܢ ܡܕܡܝܢ
ܕܡܛܠܐ ܕܩܘܫܐ ܗܢܐ
ܠ ٢٤ ܣܘܦܐ ܡܪܒܥܐ ܕܨܠܥܝܗ
ܚܕ ܣܢܬܝܡܝܛܪܐ.

* * * * *

## ܡܢܘܬܐ ܕܡܝܛܪܐ ܡܟܥܒܐ

ܚܕܝܘܬܐ ܪܒܬܐ ܠܟܝܠܐ ܕܟܝܠܐ ܗܝ ܡܝܛܪܐ ܡܟܥܒܐ.
ܘܗܝ ܣܘܦܐ ܡܪܒܥܐ ܕܨܠܥܝܗ ܚܕ ܡܝܛܪܐ ܘܪܡܙܗ (ܡ$^3$)

## ܡܫܘܚܬܐ ܕܟܝܠܐ

ܕܣܢܬܝܡܝܛܪܐ ܡܟܥܒܐ: ܗܝ ܟܝܠܐ ܕܣܘܦܐ ܡܪܒܥܐ ܕܨܠܥܝܗ ܚܕ
ܣܢܬܝܡܝܛܪܐ ܘܪܡܙܗ (ܣܡ$^3$).

* ܣܢܬܝܡܝܛܪܐ ܡܩܦܬܐ ܐܝܠܗ ܟܝܠܬܐ ܕܡܘܦܬܐ ܡܘܪܒܐ ܕܐܠܟܘ ܚܕ ܣܢܬܝܡܝܛܪܐ ܘܪܡܘܬܐ ( ܣܡ$^{٣}$ )

* ܡܠܝܡܝܛܪܐ ܡܩܦܬܐ ܐܝܠܗ ܟܝܠܬܐ ܕܡܘܦܬܐ ܡܘܪܒܐ ܕܐܠܟܘ ܚܕ ܡܠܝܡܝܛܪܐ ܘܪܡܘܬܐ ( ܡܠܡ$^{٣}$ )

## ܐܫܘܝܐ ܒܝܢ ܚܕܝܘܬܐ ܕܡܫܚܬܐ ܕܟܝܠܬܐ

ܡܝܛܪܐ = ١٠ ܕܣܡ

ܡܝܛܪܐ ܡܩܦܬܐ = ١٠ × ١٠ × ١٠ = ١٠٠٠ ܕܣܡ$^{٣}$

ܘܗܕܟܐ ܕܝܣܝܡܝܛܪܐ = ١٠ ܣܡ

ܕܝܣܝܡܝܛܪܐ ܡܩܦܬܐ = ١٠ × ١٠ × ١٠ = ١٠٠٠ ܣܡ$^{٣}$

ܘܗܕܟܐ ܣܢܬܝܡܝܛܪܐ = ١٠ ܡܠܡ

ܣܢܬܝܡܝܛܪܐ ܡܩܦܬܐ = ١٠ × ١٠ × ١٠ = ١٠٠٠ ܡܠܡ$^{٣}$

## ܟܝܠܬܐ ܕܡܝܛܪܐ ܡܩܦܬܐ

ܠܡܝܛܪܐ ܡܩܦܬܐ ܟܝܠܬܐ ܙܘܥܪܐ ܝܠܗ ܡܦܠܚܝܬܝ ܠܗ ܒܡܢܝܢܐ ܕܟܘܠܡܐ ܘܝܠܗ :

ܕܟܡܝܛܪܐ ܡܩܦܬܐ = ١٠٠٠ ܡܝܛܪܐ ܡܩܦܬܐ

ܗܩܛܘܡܝܛܪܐ ܡܩܦܬܐ = ١٠٠٠ ܕܟܡܝܛܪܐ ܡܩܦܬܐ

ܟܝܠܘܡܝܛܪܐ ܡܩܦܬܐ = ١٠٠٠ ܗܩܛܘܡܝܛܪܐ ܡܩܦܬܐ .

ܡܬܠܐ ( ٦ ) : ܚܫܘܒ ١٥ ܡܝܛܪܐ ܡܩܦܬܐ ܠܕܝܣܝܡܝܛܪܐ ܡܩܦܬܐ

ܫܪܐ : ١ ܡ$^{٣}$ = ١٠٠٠ ܕܣܡ$^{٣}$

١٥ × ١٠٠٠ = ١٥٠٠٠ ܕܣܡ$^{٣}$

ܡܬܠܐ ( ٧ ) : ܚܫܘܒ ٥ ܡܝܛܪܐ ܡܩܦܬܐ ܠܣܢܬܝܡܝܛܪܐ ܡܩܦܬܐ

ܫܪܐ : ܡܝܛܪܐ = ١٠٠ ܣܡ

ܡܝܛܪܐ ܡܩܦܬܐ = ١٠٠ × ١٠٠ × ١٠٠ = ١٠٠٠٠٠٠ ܣܡ$^{٣}$

ܡܝܛܪܐ ܡܩܦܬܐ = ١٠٠٠٠٠٠ ܣܡ$^{٣}$

٥ ܡ$^{٣}$ = ٥ × ١٠٠٠٠٠٠ = ٥٠٠٠٠٠٠ ܣܡ$^{٣}$

ܡܬܠܐ ( ٨ ) : ܚܫܘܒ ٣٠٠٠٠٠ ܣܡ$^{٣}$ ܠܕܝܣܝܡܝܛܪܐ ܡܩܦܬܐ .

ܫܪܐ : ܕܝܣܝܡܝܛܪܐ ܡܩܦܬܐ = ١٠٠٠ ܣܡ$^{٣}$

٣٠٠٠٠٠ ÷ ١٠٠٠ = ٣٠٠ ܕܣܡ$^{٣}$

| ܚܘܪܐ ܗܘܝܬ ܟܕ ܚܫܠܬܘܢ ܗܘܝܬ ܡܢ ܚܕܝܘܬܐ ܘܠܥܠܐ ܠܬܚܬܝܐ ܡܚܝܒܐ ܗܘܝܬ ܒܡܟܦܠܬܐ ܕܦܠܚܬܐ ܘܐܢ ܚܫܠܬܘܢ ܗܘܝܬ ܡܢ ܚܕܝܘܬܐ ܬܚܬܝܬܐ ܠܥܠܝܐ ܡܚܝܒܐ ܗܘܝܬ ܒܡܦܠܓܘܬܐ ܕܦܠܓܐ . |
| --- |

## ܡܫܘܚܬܐ ܕܚܒܝܫܘܬܐ

ܦܢܝܢ ܡܦܩܠܣܬܐ ܠܡܫܠܬܐ ܕܡܟܝܠܬܐ ܕܡܠܘܐܐ ܕܡܘܟܐ ܘܡܠܘܐܐ ܡܢ ܢܓܪܐ ܕܡܝܡܐ ܐܝܟ ܚܡܪܐ ܘܡܫܚܐ ܘܚܠܒܐ ܘܚܡܪܐ. ܐܢܝܢ ܡܠܘܐܐ ܠܝܬ ܠܗܘܢ ܐܣܟܝܡܐ ܦܐܝܫܐ ܡܢ ܡܢܐ ܐܣܟܝܡܐ ܕܡܢܐ ܕܦܢܝܢ ܡܗܘܢ ܠܒܘܫ ܘܡܢܗ ܐܝܟ ܦܠܚܝܢ ܠܡܫܘܚܬܐ ܕܡܟܝܠܬܐ ܕܐܢܝܢ ܡܠܘܐܐ ܒܐܘܪܚܐ ܕܡܬܚܫܚܬܐ ܕܡܟܝܠܬܐ ܠܗܢܐ ܕܡܢܐ. ܘܡܢܝܢ ܕܡܬܩܪܝܢ ܠܚܒܝܫܘܬܐ ܕܡܢܐ ܒܫܘܚܬܐ ܕܡܟܝܠܬܐ، ܒܐܡܪܝܢ ܗܘ ܠܝܛܪܐ:

ܚܒܝܫܘܬܐ ܕܠܗܘ ܕܦܠܓܐ ٢٥ ܕܣܢܛܝܡܛܪܐ ܡܩܦܐ.

ܘܚܒܝܫܘܬܐ ܕܘܠܝܬܐ ٧٥ ܣܡ³.

ܘܗܕܐ ܚܒܝܫܘܬܐ ܝܕܝܥܬܐ ܠܚܒܝܫܘܬܐ ܠܗ ܠܝܬܪܐ ܘܗܘܐ ܕܡܫܡܫܬܐ ܡܩܦܐ ܘܠܝܬܪܐ ܐܝܬ ܠܗ ܡܫܘܚܬܐ ܚܒܝܫܐ ܠܝܬ ܕܘܟܐ ܠܕܪܓܬܗ ܠܐܪܥܐ.

ܠܝܬܪܐ = ١ ܕܣܡ³ = ١٠٠٠ ܣܡ³

### ܕܘܪܫܐ ( ٧ ـ ٢ )

١ ـ ܐܝܡܢ ܚܒܝܫܘܬܐ ܡܢ ܚܒܝܫܘܬܐ ܕܡܟܝܠܬܐ ܒܠܝܟ ܠܡܫܠܬܐ ܕܡܟܝܠܬܐ ܕܡܝܐ، ܚܘܠܒܐ ܕܚܡܪܐ ܡܫܚܐ. ܠܒܢܐ، ܚܡܪܐ ܕܡܝܐ ܕܡܫܡܫܬܐ، ܚܒܘܫܐ ܕܠܒܫܘܬܐ؟

٢ ـ ܡܠܝ ܠܡܦܫܘܬܐ ܕܐܬܝ:

ܐ ـ ٣٢٥ ܡ³ = ........ ܕܣܡ³

ܒ ـ ١٣٢ ܡ³ = ........ ܣܡ³

ܓ ـ ٤٨٠ ܣܡ³ = ........ ܡܠܡ³

ܕ ـ ٣٦،٠ ܡ³ = ........ ܕܣܡ³

ܗ ـ ٨،٣٩ ܡܠܡ³ = ........ ܣܡ³

٣ ـ ܡܫܘܝܢܠܗ ܦܬܝܐ ܕܡܪܒܥܬܗ ܘܬܘܪܬܐ ܚܕ ܡܟܥܒܐ ܡܫܘܚܬܐ ܡܢ ܪܡܠܐ
ܘܐܝܬܠܗ ܠܡܠܝܬܐ ܕܨܢܕܘܩܐ ܕܡܪܒܥܬܗ ٦ ܟܡܐ ܠܒ̈ܢܝܬܐ ܕܪܡܠܐ .
ܣܢܝܩ ܟܘܡܬܐ ܕܨܢܕܘܩܐ ܕܡܪܒܥܬܐ ܒܦܘܬܝܬܐ ܡܫܘܚܬܐ
ܕܡܘܪܟܒܐ ܨܘܪܬܐ .

٤ ـ ܡܚܫܒܠܗܘܢ ܒܝܢܬܐ ٣٦٠٠ ܕܣܡ̄³ ܡܢ ܡܝܐ ܘܡܠܝܠܗܘܢ ܟܘܣܐ ܕ $\frac{٣}{٤}$ ܡܢ
ܠܒܝܬܐ ܕܒܝܢܬܐ ، ܟܡܐ ܡܟܝܠܐ ܡܫܘܚܬܐ ܐܝܬܠܗ ܠܒܝܬܐ ܕܒܝܢܬܐ ؟

* ──────────── *

## ٧ ـ ٤ ܡܫܘܚܬܐ ܕܡܟܥ̈ܒܐ

ܡܬܠܐ :

$$٢^{٣} = ٢ \times ٢ \times ٢ = ٤ \times ٢ = ٨$$

$$٣^{٣} = ٣ \times ٣ \times ٣ = ٩ \times ٣ = ٢٧$$

$$٥^{٣} = ٥ \times ٥ \times ٥ = ٢٥ \times ٥ = ١٢٥$$

ܘܟܠ ܡܟܥ̈ܒܐ ܗܘ ܚܕ ܡܢܝܢܐ ٣ ܦܝܫ ܚܕܐ ܡܫܘܚܬܐ ܕܐܝܬ ܡܟܥ̈ܒܐ ، ܡܫܘܚܬܐ
ܕܡܟܥ̈ܒܐ ٢ ܝܠܗ $٢^{٣} = ٨$ ܘܡܫܘܚܬܐ ܕܡܟܥ̈ܒܐ $٣^{٣}$ ܝܠܗ ٢٧
ܡܬܠܐ ( ٩ ) : ܐܟܬܘܒ ܡܫܘܚܬܐ ܕܡܟܥ̈ܒܐ ٦ .
ܦܘܪ̈ܫܐ :

ܡܫܘܚܬܐ ܕܡܟܥ̈ܒܐ $٦^{٣} = ٦ \times ٦ \times ٦ = ٣٦ \times ٦ = ٢١٦$

* ──────────── *

# ٧ ـ ٥ ܫܪܫܐ ܡܩܘܦܐ ܠܡ̈ܢܝܢܐ

ܡܢ ܛܘܦܣܐ ܕܟܒܝܪܐ ܚܙܝܐ ܗܘܝܚ :

٨ = ٢ × ٢ × ٢

٢٧ = ٣ × ٣ × ٣

١٢٥ = ٥ × ٥ × ٥

ܟܠ ܡ̈ܢܝܢܐ ܩܝܣ ܗܕܡܐ ٢ ، ٣ ، ٥ ܫܪܫܐ ܡܩܘܦܐ ܠܡ̈ܢܝܢܐ ٨ ، ٢٧ ، ١٢٥ ܒܢܝܫܘܬܐ .

ܫܪܫܐ ܡܩܘܦܐ ܠܡ̈ܢܝܢܐ ٨ ܝܠܗ ٢ ܒܣܝ ٢^٣ = ٨

ܘܫܪ̈ܫܐ ܡܩܘܦܐ ܠܡ̈ܢܝܢܐ ٢٧ ܝܠܗ ٣ ܡܢ ٣^٣ = ٢٧

ܛܘܦܣܐ ( ١٠ ) :

ܡܐ ܝܠܗ ܫܪܫܐ ܡܩܘܦܐ ܠܡ̈ܢܝܢܐ ٣٣٧٥ ؟

ܦܘܪܫܐ : ٣٣٧٥ = ٣ × ٣ × ٣ × ٥ × ٥ × ٥

= ( ٣ × ٥ ) ( ٣ × ٥ ) ( ٣ × ٥ )

= ١٥ × ١٥ × ١٥

ܫܪܫܐ ܡܩܘܦܐ ܠܡ̈ܢܝܢܐ ٣٣٧٥ = ١٥

| | | |
|---|---|---|
| ٣٣٧٥ | ٣ | ٣ |
| ١١٢٥ | ٣ | |
| ٣٧٥ | ٣ | |
| ١٢٥ | ٥ | ٥ |
| ٢٥ | ٥ | |
| ٥ | ٥ | |
| ١ | | |

ܛܘܦܣܐ ( ١١ ) :

ܐܝܟܢ ܠܫܪܫܐ ܡܩܘܦܐ ܠܡ̈ܢܝܢܐ ٥١٢ ܒܐܘܪܚܐ ܕܦܘܪܫܐ ܠܡ̈ܢܝܢܐ ܦܫܝܛܐ

ܦܘܪܫܐ :

٥١٢ = ٢ × ٢ × ٢ × ٢ × ٢ × ٢ × ٢ × ٢ × ٢

= (٢ × ٢ × ٢) ( ٢ × ٢ × ٢) ( ٢ × ٢ × ٢ )

= ٨ × ٨ × ٨

∴ ܫܪܫܐ ܡܩܘܦܐ ܠܡ̈ܢܝܢܐ ٥١٢ = ٨

| | | |
|---|---|---|
| ٥١٢ | ٢ | ٢ |
| ٢٥٦ | ٢ | |
| ١٢٨ | ٢ | |
| ٦٤ | ٢ | ٢ |
| ٣٢ | ٢ | |
| ١٦ | ٢ | |
| ٨ | ٢ | ٢ |
| ٤ | ٢ | |
| ٢ | ٢ | |
| ١ | | |

ܦܢܝܐ :

| ܟܕ ܡܫܘܚܬܐ ܚܡܪܐ ܡܥܩܒܐ ܠܡܢܝܢܐ ܟܥܒܐܘ ܠܫܪܫܗ ܡܩܕܝܐ ܘܡܠܬܐ ܕܫܪܫܐ . ܟܠ ٣ ܫܪܫܐ ܫܘܝܐ ܘܡܫܘܚܬܐ ܕܫܪܫܐ ܦܠܓܐ ܒܐܝܕܐ . |
|---|

## ܕܘܪܫܐ ( ٧ ـ ٣ )

١. ܐܫܟܚ ܠܫܪܫܐ ܡܥܩܒܐ ܠܡܢܝܢܐ ܕܐܬܝܢ ܒܐܘܪܚܐ ܕܦܪܫܘܬܐ ܠܫܪܫܐ ܡܩܕܝܐ : ٧٢٩ ، ١٧٢٨ ، ٢٧٤٤

٢. ܦܬܐ ܕܦܢܝܬܐ ܡܥܩܒܐ ܕܐܝܟܢܝܬܐ ܚܝܠܘܬܗ ٨ ܣܡ[3] . ܐܫܟܚ ܝܘܪܟܐ ܕܐܠܠܐ ܕܦܬܐ .

٣. ܡܫܚܬܐ ܕܕܘܒܝܐ ܡܥܩܒܐ ܕܐܝܟܢܝܬܐ ܚܝܠܗ ܫܘܐ ٢١٦ ܣܡ[3] . ܐܫܟܚ ܝܘܪܟܐ ܕܐܠܠܐ ܡܥܩܒܐ .

٤. ܡܢܐ ܒܐܝܟܢܝܬܐ ܡܥܩܒܐ ܚܝܠܘܬܗ ١٣٨٢٤ ܣܡ[3] ، ܐܫܟܚ ܝܘܪܟܐ ܕܐܠܠܗ .

## ٧ ـ ٦ ܚܝܠܐ ܕܡܫܚܬ ܐܝܟܢܝܬܐ ܡܩܘܪܒܐ

ܐܝܟ ܕܗܘ ܝܕܥ ܒܪܫܐ ܕܡܥܩܒܐ ܕܡܫܘܚܬܐ ܕܝܘܪܟܐ ܕܐܠܠܐ ܕܟܠ ܚܕ ܡܢܗܘܢ ١ ܣܡ ، ܗܢܐ ܗܘ ܡܢܝܢܐ ܚܕܘܬܐ ܕܚܝܠܐ .

ܘܐܦܠܐ ܡܢܗܘܢ ܚܕܟܡܐ ܡܫܚܬ ܐܝܟܢܝܬܐ ܡܩܘܪܒܐ ܐܝܟ ܒܐܝܟܢܝܬܐ . ܫܪܫܐ ܦܠܝܓ ܗܘ ܝܕܥ ܠܡܫܟܚܘܬܐ ܕܐܝܟܢܐ ܒܝܢ ܚܝܠܐ ܕܟܠ ܚܕ ܡܫܚܬ ܐܝܟܢܝܬܐ ܡܩܘܪܒܐ ܘܒܝܢ ܝܘܪܟܗ ܘܦܬܝܘܬܗ ܘܪܘܡܘܬܗ .

ܡܢ ܕܡܬܚܙܝܐ ܒܬܪܬܝܢ ܐܝܠܝܢ ܡܢ ܗܘܪܟܢܐ ١٢٠ ܚܕܘܬܐ ܕܡܬܚܙܝܐ ، ܒܗ ܕܡܬܚܙܝܐ ܕܡܫܚܬ ܐܝܟܢܝܬܐ ܡܩܘܪܒܐ ܦܠܝܓ ܡܢ ܗܘܦܟܐ :

ܝܘܪܟܐ × ܦܬܝܘܬܐ × ܪܘܡܘܬܐ

(٢)

(١)

ܐܘܪܟܐ (٨) ܦܬܝܘܬܐ (٢) ܪܘܡܘܬܐ (٣) ܟܥܒ̈ܐ (٤٨)

ܐܘܪܟܐ (٣)
ܦܬܝܘܬܐ (٢)
ܪܘܡܘܬܐ (٥)
ܟܥܒ̈ܐ (٣٠)

(٣)

| ܐܘܪܟܐ | ܦܬܝܘܬܐ | ܪܘܡܘܬܐ | ܟܥܒ̈ܐ |
|---|---|---|---|
| ٣ | ٢ | ٥ | ٣٠ |
| ٨ | ٢ | ٣ | ٤٨ |
| ٥ | ٣ | ٤ | ٦٠ |
| ٦ | ٤ | ٥ | |

ܐܘܪܟܐ (٥) ܦܬܝܘܬܐ (٣) ܪܘܡܘܬܐ (٤) ܟܥܒ̈ܐ (٦٠)

ܛܘܦܣܐ (١٢) :

ܟܡܐ ܝܠܗ ܟܥܒ̈ܐ ܕܡܨܝܚ ܬܡܠܝܐ ܡܟܘܢܝܐ ܐܘܪܟܐ ܕܝܠܗ ٥ ܣܡ ܘܦܬܝܘܬܗ ٤ ܣܡ ܘܪܘܡܘܬܗ ٢ ܣܡ ؟

ܫܪܝܐ :

ܦܐܬܐ ܕܡܨܝܚ ܬܡܠܝܐ ܡܟܘܢܝܐ ܝܠܗ ܡܫܘܚܬܐ

ܫܛܝܚܘܬܐ ܕܦܐܬܐ = ٥ × ٤ = ٢٠ ܣܡ²

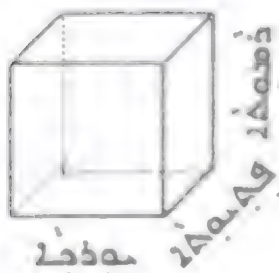
ܐܢ ܡܣܝܡܚܢ ܚܕ ܟܠ ܚܕ ܡܢ ܡܪܒܥ̈ܐ ܡܢ ܡܪܒܥ̈ܐ ܕܦܐܬܐ ܡܣܩܬܐ ܡܢ ܡܣܩܬܐ ܕܐܘܪܟܐ ܕܟܠ ܚܕ ܡܢܗܘܢ ١ ܣܡ ܝܠܗ ܒܫܘܝܐ ٢٠ ܡܣܩܬܐ ܠܚܫܚܬܐ ܕܟܠܝܗ ܡܪܒܥ̈ܐ ܒܪܫ ܕܐܦ̈ܐ ܒܝ ܡܟܬܒ ܡܕܝܢܬܐ ܐܚܪܢܐ ܡܢ ܡܣܩܬܐ ܕܡܨܝܚ ܠܡܣܝܡܬܐ ܩܕܡ ܠܡܣܝܡܬܐ ܕܬܪܝܢܬܐ .

ܡܢܝܢܐ ܕܡܩܥܒܐ ܕܦܬܟܠܗܘܢ، ܡܘܡܠܝ ܗܘܐ ܩܕܡܝܬܐ = ٢٠ ܡܩܥܒܐ

ܡܢܝܢܐ ܕܡܩܥܒܐ ܕܦܬܟܠܗܘܢ، ܡܘܡܠܝ ܗܘܐ ܬܪܝܢܝܬܐ = ٢٠ ܡܩܥܒܐ

ܗܘܐ ܟܘܠܗ = ٤٠ ܡܩܥܒܐ.

ܘܡܘܟܠܐ ܕܗܘܐ ܠܗ ܕܚܠܝܬܐ ܕܡܟܫܝܪ ܬܫܠܡܬܐ ܡܥܠܝܐ = ٤٠ ܗܡ ܡܩܥܒܐ = ٤٠ ܗܡ³

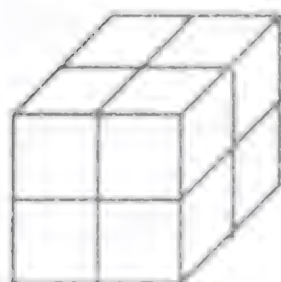



| ܗܘܐ : ܚܠܝܬܐ = ܬܫܠܡܬܐ ܕܐܪܥܐ × ܪܘܡܬܐ |
|---|
| ܐܘ ܚܠܝܬܐ = ( ܐܘܪܟܐ × ܦܬܝܘܬܐ ) × ܪܘܡܬܐ |

## ٧ . ٧ ܚܠܝܬܐ ܕܡܩܥܒܐ

ܡܩܥܒܐ ܗܘܝܘ ܓܘܫܡܐ ܡܢ ܫܬܐ ܦܐܬܐ ܫܘܝܐ، ܘܟܠ ܦܐܬܐ ܦܫܝܛܬܐ ܡܪܒܥܬܐ ܕܐܫܘܝܘܬܐ، ܘܠܡܫܟܚܘܬܐ ܕܚܠܝܬܐ ܕܡܩܥܒܐ ܒܐܬܪܝܢ ܐܘܪܚܐ ܒܢܝܬܗ ܕܡܫܬܚܠܦ ܗܘܐ ܚܠܝܬܐ ܕܡܟܫܝܪ ܬܫܠܡܬܐ ܡܥܠܝܬܐ. ܐܢ ܒܥܠܝܟ ܡܫܟܚܘܬܐ ܕܚܠܝܬܐ ܕܡܩܥܒܐ ܐܘܪܟܗ ܕܐܝܬܘܗܝ ٢ ܗܡ ܒܐܪܡܝܢ ܕܡܫܘܚܬܐ ܕܬܫܠܡܬܐ ܕܐܪܥܐ ܕܡܩܥܒܐ ܗܘ ܡܪܒܥܬܐ ܐܘܪܟܗ ܕܐܝܬܘܗܝ ٢ ܗܡ

ܗܟܢ ܕܗܘܐ ܡܫܘܚܬܐ ܕܐܪܥܐ = ٢ × ٢ = ٤ ܗܡ²،



ܬܫܠܡܬܐ ܕܐܪܥܐ ܫܘܝܐ ܠܐܪܒܥܐ ܡܪܒܥܬܐ.

ܐܢ ܡܫܟܚܝܢ ܗܟܢ ܟܠ ܡܪܒܥܬܐ ܡܢ ܡܪܒܥܬܐ

ܕܐܪܥܐ ܡܩܥܒܐ ܡܫܘܚܬܐ ܕܐܘܪܟܐ ܕܐܝܬܘܗܝ ١ ܗܡ،

ܡܢܝܢܐ ܕܡܩܥܒܐ ܕܗܘܐ ܠܐܪܥܐ ܗܘ ٤ ܡܩܥܒܐ.

ܘܐܢ ܡܫܟܚܝܢ ܚܕ ܡܕܡܐ ܐܚܪܢܐ ܡܢ ܡܩܥܒܐ ܥܠ ܪܝܫ ܠܡܩܥܒܐ ܡܫܘܚܬܐ ܕܐܘܪܟܐ ܕܐܝܬܘܗܝ ٢ ܗܡ ܘܡܢܝܢܐ ܕܡܩܥܒܐ ܡܬܬܪܝܐ ܠܗ :

٢ × ٢ × ٢ = ٨ ܗܡ³

ܐܢ ܫܩܠܢ ܡܟܥܒܘܬܐ ܕܢܘܓܪܐ ܕܦܐܬܐ ٣ ܣܡ ܘܦܠܓܢܝ ܡܟܥܒܐ ܠܟܘܪܝܐ
ܬܠܬܐ ܠܘܚܐ ܟܠ ܚܕ ٩ ܡܟܥܒܐ ܡܟܝܠ ܒܐܠܘܬܐ ܡܬܩܢܐ ܡܢ ܡܟܥܒܐ
ܘܡܟܥܒܘܬܐ ܕܦܐܬܐ ܕܟܠ ܚܕ ܡܢܗܘܢ ١ ܣܡ ܘܒܗܘܐ ܡܢܝܢܐ ܕܡܟܥܒܐ ܟܠܗܘܢ
٢٧ ܡܟܥܒܐ .

ܚܓܡܐ ܕܡܟܥܒܐ = ٣ × ٣ × ٣ = ٢٧ ܣܡ$^{3}$

ܘܒܐܘܪܚܐ :

| ܚܓܡܐ ܕܡܟܥܒܐ = ܢܘܓܪܐ ܕܦܐܬܐ × ܢܘܓܪܐ ܕܦܐܬܐ × ܢܘܓܪܐ ܕܦܐܬܐ<br>= ܡܟܥܒܐ ܕܢܘܓܪܐ ܕܦܐܬܐ |
|---|

ܦܘܠܚܢܐ ( ١٣ ) :

ܡܢ ܗܘ ܚܓܡܐ ܕܡܟܥܒܐ ܕܢܘܓܪܐ ܕܦܐܬܗ ٤ ܣܡ ؟

ܚܓܡܐ = ܡܟܥܒܐ ܕܢܘܓܪܐ ܕܦܐܬܐ

$= ٤^{٣}$

$= ٤ \times ٤ \times ٤$

= ٦٤ ܣܡ$^{3}$

## ܕܘܪܫܐ ( ٧ ـ ٤ )

١ ـ ܚܫܘܒ ܒܐܘܪܚܐ ܚܓܡܐ ܕܟܠ ܚܕ ܡܢ ܡܟܥܒܐ ܕܡܟܥܒܘܬܐ ܕܢܘܓܪܐ ܕܦܐܬܐ
ܕܟܠ ܚܕ ܡܢܗܘܢ ٣ ܣܡ ، ٤ ܣܡ ، ١٠ ܣܡ .

٢ ـ ܒܣܘܪܓܕܐ ܕܠܗܠ ܚܫܘܒ ܢܘܓܪܐ ܕܟܠ ܚܕ ܡܢ ܡܟܝܠܬܐ ܣܬܝܪܬܐ ܕܒܗܘܢ
، ܘܡܟܠܗ :

| ܢܘܓܪܐ | ١٠ ܡ | ٣٠ ܡ | ٥ ܡ | ٢٩ ܡ | ١١ ܡ |
|---|---|---|---|---|---|
| ܦܬܝܘܬܐ | ٩ ܡ | ٢٠ ܡ | ٤ ܡ | ١٦ ܡ | ٣ ܡ |
| ܪܘܡܘܬܐ | ٦ ܡ | ٣ ܡ | ١,٥ ܡ | ٠,٥ ܡ | ٣٣ ܡ |
| ܚܓܡܐ | | | | | |

٣. ܫܪܐ ܠܗ ܚܕ ܦܠܚܐ ܠܡܙܪܥ ܚܩܠܐ ܡܪܒܥܐ ܕܐܣܛܡܐ ܐܘܪܟܐ ܕܐܠܦܘ ٣,٥ ܟܡ . ܟܡܐ ܝܠܗ ܐܪܥܐ ܐ، ܦܫܝܛܐ ܕܣܦܪܬܐ ܕܚܕ ܡܬܬܐ ܡܪܒܥܐ ܝܠܗ ܚܕ ܕܝܢܪܐ ؟

٤. ܡܚܠܐ ܡܢ ܕܘܒܐ ܠܚܕܘ : ܗܡ³ . ܗܘܪܬܘܗ̇، ܡܢܗ ܗܦܪܫܬܐ ܡܪܒܥܐ ܕܐܣܛܡܐ ܐܠܦܐ ܕܚܕ $\frac{1}{2}$ ܗܡ . ܟܡܐ ܗܦܪܫܬܐ ܗܘܪܬܘܗ ܚܠܦܝܐ ؟

٥. ܦܫܝܛܐ ܕܐܣܛܡܐ ܕܡܬܚܫ ܬܠܝܬܐ ܡܢܘܢܐ ܢܘܪܟܘ (٢٠ ، ٢٠ ، ٣٥) ܗܡ ܦܬܠܘ ܡܠܝܬܐ ܕܡܝܐ . ܦܬܠܘ ܡܬܦܩܬܐ ܠܗ ܡܢܐ ܡܪܒܥܐ ܕܐܣܛܡܐ ܢܘܪܟܐ ܕܐܠܦܘ ٣٥ ܗܡ . ܐܝܟ ܟܕ ܡܠܐ ܡܢܐ ؟ ܘ ܟܡܐ ؟

٦. ܐܝܟܐ ܟܕ ܠܟܘܪܐ ܠܠܝܬܐ ܡܬܚܫ ܬܠܝܬܐ ܡܢܘܢܐ ܢܘܪܟܘ ٨ ، ٤ ، ٧ ܡܢ ܦܬܫܒܫܬܐ ܐܘ ܡܪܒܥܐ ܢܘܪܟܐ ܕܐܠܦܘ ٦ ܦܬܫܒܫܬܐ ؟

٧. ܡܢܐ ܕܟܠܟܠܬܐ ܕܐܣܛܡܐ ܕܡܬܚܫ ܬܠܝܬܐ ܡܢܘܢܐ ܢܘܪܟܘ ܡܢ ܠܦܘܬ ٤٥ ، ٢٥ ، ٢٠ ، ܡܢ ܦܬܫܒܫܬܐ ܡܠܝܐ ܟܠܝܬܐ ܕܟܘܪܟܡܠܐ ، ܦܬܠܘ ܡܠܝܐ ܟܠܝܬܐ ܡܠܘ ܠܗ ܟܠܟܠܬܐ ܚܕܟܐ ܚܕ ܡܢܗܘܢ ٧٥٠ ܗܡ³ . ܟܡܐ ܟܠܟܠܬܐ ܦܬܠܘܗ̇ ܡܠܝܐ ؟

٨. ܡܚܠܐ ܡܢ ܦܪܘܠܐ ܕܐܣܛܡܐ ܕܡܬܚܫ ܬܠܝܬܐ ܡܢܘܢܐ ܢܘܪܟܘ ٤٠ ، ٣٠ ، ٢٠ ܡܢ ܦܬܫܒܫܬܐ ، ܦܬܠܘ ܡܬܦܪܫܐ ܘܡܬܚܠܦܐ ܠܡܪܒܥܐ ܢܘܪܟܐ ܕܚܕ ܐܠܦܐ ٥ ܗܡ ، ܟܡܐ ܝܠܗ ܡܢܝܢܐ ܕܐܢܝ ܡܪܒܥܐ ؟

# ܦܣܘܩܐ ܬܡܝܢܝܐ
# ܡܫܝܚܘܬܐ

# ܦܣܘܩܐ ܬܡܝܢܝܐ

## ܢܘܗܪܐ

٨ . ١ ܫܢܬܐ ܕܢܘܗܪܐ :

ܡܬܚܫܒܐ ܡܢ ܒܪܢܫܐ ܠܡܫܘܚܬܐ ܕܫܢܬܐ ܕܝܠܗ ܐܘܪܚܐ ܕܢܘܗܪܐ ܡܢܗ
١٠ ܒܡ ܡܪܢܝܬܐ ܡܠܐ ܕܪܗܛܗ ܟܠ ܫܢܬܐ ܒܚܫܒܢܐ ܫܡܫܝܬܐ ܘܒܗܘܐ
ܡܫܘܚܬܐ ܕܫܢܬܐ ܒܗܘܐ ܐܢܛܘܢܝܬܐ ( ١ ) ܗܡ ܠܟܠ ( ١ ) ܒܡ ܗܘܐ ܘܡܢ
$\frac{1}{\dots}$ ܒܗܝ ܕܝܠܗܘܢܬܐ = ١٠٠٠٠٠ ܗܡ ، ܘܠܦܘܬ ܡܫܘܚܬܐ
ܡܢ ܐܪܒܥܐ ܒܢܝܗ ܡܪܢܝܬܐ ܡܠܐ ܕܪܗܛܐ ܕܐܪܝܟܐ ܡܘܪܟܐ ܕܐܘܪܚܐ
ܒܡܫܘܚܬܐ ܕܫܢܬܐ ܠܚܕܐ . ܟܠ ܡܢܗ ܡܫܚܠܦ ܚܕܐ ܡܢ ܕܐܝܟ ܒܡܫܘܚܬܐ
ܕܗܘܝܐ ܨܘܪܬܐ ܠܡܫܘܚܬܐ ܕܢܘܗܪܐ ܗܘܝܐ ܘܡܫܘܚܬܗ ܘܒܥܠܬܐ
ܕܡܫܘܚܬܐ ܠܐܣܛܪܘܢܘܡܝܐ ܘܗܘܐ ܗܝ ܕܟܠ ܡܕܡ ܒܡܫܘܚܬܐ ܕܡܫܘܚܬܐ
ܡܬܟܢܝܐ ( ܫܢܬܐ ܕܢܘܗܪܐ ) .

ܡܬܠܐ ( ١ ) :

ܥܠܡܐ ܕܠܡܫܪܐ ܘܕܒܪܐ ، ܡܢ ܟܘܟܒܐ ܕܫܡܝܐ ܒܟܘܟܒܐ ܕܫܡܫܘܬܐ ،
ܘܐܝܬܠܗ ܒܡܫܘܚܬܐ ܡܢ ܫܡܫܐ ܕܫܢܬܐ ܘܐܝܬܘܗܝ ܟܪܣܝܐ ، ܒܫܢܬ ܢܘܗܪܐ
ܡܢ ܒܡܪܠܗ ܡܠܦܢܐ ܒܗܘ ܡܫܘܚܬܐ ܕܫܡܫܐ ܕܐܝܬܠܗ ، ܦܘܫܠܗ ١٧٥
ܫܢܝܐ ܕܫܡܫܐ ، ܘܐܝܟ ܒܡܫܘܚܬܗ ܒܗܘ ܡܫܘܚܬܐ ܕܫܡܫܐ ܟܪܣܝܐ
ܕܐܝܬܠܗ ، ܠܐ ܡܛܐܠܗ ܕܢܗܘܐ ܦܘܪܫܐ .

ܘܐܝܟ ܕܡܚܘܝܠܗ ܠܟܘܠܐ ܦܪܫܠܗ ܠܬܠܡܝܕܐ ܠܦܘܫ ܨܒ̈ܥܘܬܐ ، ܘܬܠܡܝܕܘܬܗ
ܠܫܘܪܬܐ ܕܐܡܪܐ ܕܟܠܗ ܩܘܒܠܠܗ ܡܢܝܢܐ ܕܬܠܡܝܕܐ ܕܟܠ ܨܒܥܐ .

| ܣܘܡܩ | ܟܘܚܠܐ | ܝܘܪܩ | ܚܘܪܐ | ܙܪܕܐ | ܩܛܡܢ |
| --- | --- | --- | --- | --- | --- |
| ٢٠ | ٤٥ | ٣٥ | ٤٥ | ٢٠ | ٣٠ |

ܗܘܐ ܠܗ ܠܡܠܦܢܐ ܡܠܟܐ ܫܘܪܬܐ ܕܩܘܒܠܐ ܡܢܝܢܐ ܕܬܠܡܝܕܐ ܕܐܝܟܠܗ ܡܢ
ܟܠ ܨܒܥܐ ، ܘܐܝܟ ܕܡܢܝܐ ܗܘܐ ܠܬܠܡܝܕܐ ܐܚܪܢܐ ܡܫܚܠܦ ܗܘܐ ܠܗܘܢ ܐܘ
ܡܘܪܝ ܗܘܐ ܠܟܬܒܐ ܕܨܒ̈ܥܘܬܐ ܐܚܪ̈ܢܐ .
ܘܝ ܟܕ ܡܠܟܐ ܕܡܘܕܥ ܦܘܪܫܐ ܒܝܢ ܡܠܬܐ ܠܟܘܢܫܐ ܕܬܠܡܝܕܐ
ܒܡܕܪܫ ܡܐ ܠܗ ܡܢܝܢ ܕܡܫܟܚܠܗ ܠܡܢܝܢܐ ܕܟܠܗ ܫܘܪܬܐ ܡܢܚܬܐ ܐܝܟ
ܒܐܣܟܡܐ .
. ܚܘܝ ܠܐܣܟܡܐ ܘܦܫܘܩ ܠܫܘܐܠܐ ܕܐܬܝ :
. ܬܠܡܝܕܐ ܕܐܝܠܢܐ ܨܒܥܐ ܒܝܢ ܪܒܐ
ܗܝ ܐܚܪܢܐ ܠܡܠܦܢܐ ܡܠܟܐ ؟
. ܐܝܟ ܗܕܐ ܨܒ̈ܥܘܬܐ ܒܨܝܪܐ
ܒܡܢܝܢܐ ܕܬܠܡܝܕܐ ، ܕܒܘܪܟܝܗ .

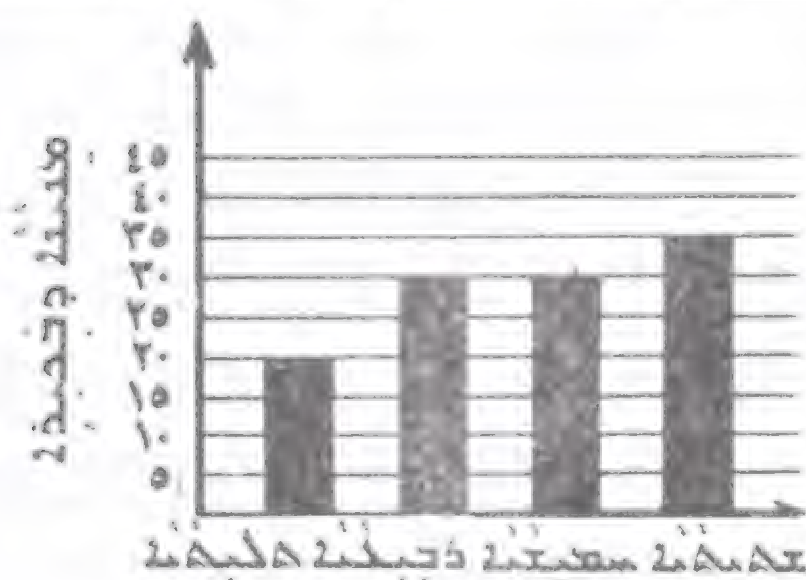
٤٥
٤٠
٣٥
٣٠
٢٥
٢٠
١٥
١٠
٥

ܛܘܦܣܐ (٢) :

ܐܢ ܚܕܐ ܡܕܪܫܬܐ ܡܢܝܢܐ ܕܬܠܡܝܕܐ ١١٥ ܬܠܡܝܕܐ ܗܘܐ ، ܡܫܘܠܛܐ ܠܡܕܒܪܐ ܕܬܠܝܬܝܬܐ ܘܪܒܝܥܝܬܐ ܘܚܡܝܫܝܬܐ ܘܫܬܝܬܝܬܐ ܐܝܟ ܕܗܘܝܐ ܕܐܬܐ :

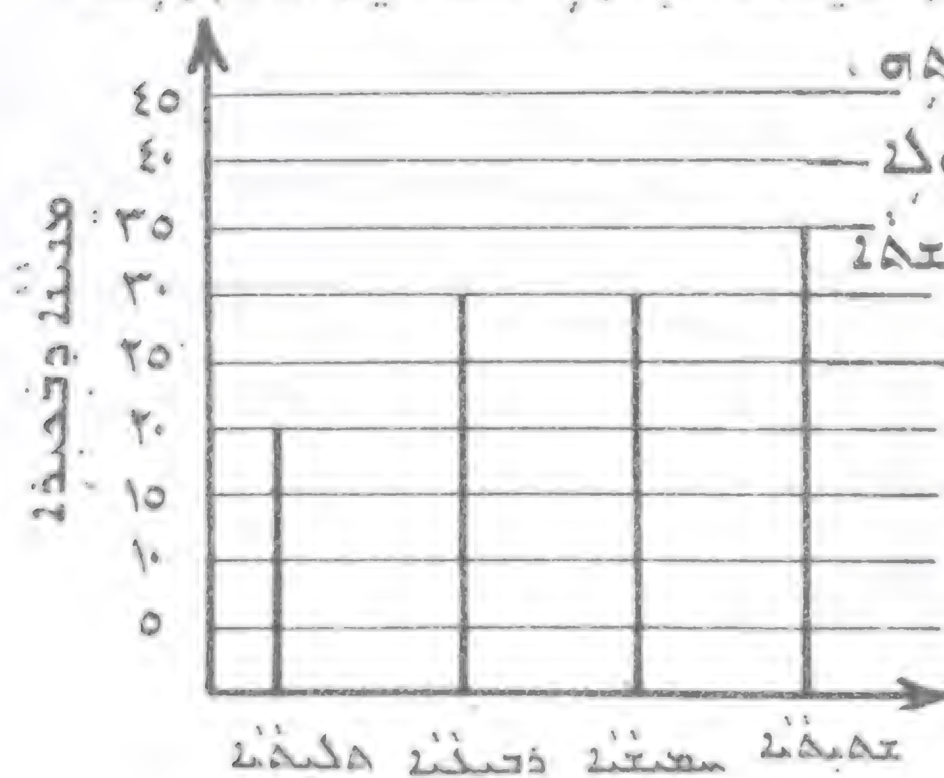
| ܣܕܪܐ | ܬܠܝܬܝܬܐ | ܪܒܝܥܝܬܐ | ܚܡܝܫܝܬܐ | ܫܬܝܬܝܬܐ |
| --- | --- | --- | --- | --- |
| ܡܢܝܢܐ ܕܬܠܡܝܕܐ | ٢٠ | ٣٠ | ٣٠ | ٣٥ |

ܪܘܫܡܐ ܕܥܡܘܕܐ ܗܘܐ ܒܐܣܟܡܐ ܕܐܬܐ :
ܚܙܝ ܠܪܘܫܡܐ ܘܦܢܝ ܠܫܘܐܠܐ ܕܐܬܝ :




١ - ܒܐܝܢܐ ܣܕܪܐ ܐܝܬ ܡܢܝܢܐ ܒܝܫ ܪܒܐ ܡܢ ܬܠܡܝܕܐ ؟
٢ - ܒܐܝܢܐ ܣܕܪܐ ܐܝܬ ܡܢܝܢܐ ܒܝܫ ܙܥܘܪܐ ܡܢ ܬܠܡܝܕܐ ؟

ܘܡܨܝܢ ܕܪܫܡܝܢ ܠܥܡܘܕܐ ܡܚܘܝ ܠܡܢܝܢܐ ܕܬܠܡܝܕܐ ܒܟܠ ܣܕܪܐ ܡܢ ܒܬܪ ܡܩܒܠܢܐ ܥܡ ܦܠܓ ܠܥܡܘܕܐ ܒܓܘܗ .
ܚܙܝ ܠܐܣܟܡܐ ܕܐܬܐ ܕܡܚܘܐ ܠܗ ܡܢܝܢܐ ܕܬܠܡܝܕܐ ܐܢ ܡܕܪܫܬܐ ܒܓܘܗ ܒܥܘܕܪܐ ܕܥܡܘܕܐ .



ܦܘܪܫܐ ( ٣ ) :

ܬܠܡܝܕܐ ܕܡܕܪܫܬܐ ܒܪܘܫܬܐ ܡܢܝܢܗܘܢ ٣٦٠ ܬܠܡܝܕܐ ، ܡܦܘܠܓܝܢ ܠܫܬܐ ܣܕܪܐ ܐܝܟ ܕܐܬܐ : ܣܕܪܐ ܩܕܡܝܐ ٥٥ ܣܕܪܐ ܬܪܝܢܐ ٩٠ ܣܕܪܐ ܬܠܝܬܝܐ ٢٥ ܣܕܪܐ ܪܒܝܥܝܐ ٦٠ ܣܕܪܐ ܚܡܝܫܝܐ ٤٠ ܣܕܪܐ ܫܬܝܬܝܐ ٩٠ .

ܡܢܝܢܐ ܗܠܝܢ ܡܬܚܘܝܢ ܕܐܝܟ ܐܝܟ ܕܗܘ ܚܘܝܐ ܕܐܝܬܝܗ ܒܐܣܟܡܐ .

ܚܘܪ ܠܐܣܟܡܐ ܘܦܢܝ ܠܫܘܐܠܐ ܕܐܬܝܢ :

١. ܐܝܟܢܐ ܚܕ ܬܪ̈ܝܢ ܡܠܘܐ ܕܣܕܪܐ ܩܕܡܝܐ ܐܘ ܡܠܘܐ ܕܣܕܪܐ ܬܠܝܬܝܐ ؟

٢. ܐܝܟܢܐ ܚܕ ܦܘܪܫܐ ܡܠܘܐ ܕܣܕܪܐ ܪܒܝܥܝܐ ܐܘ ܡܠܘܐ ܕܣܕܪܐ ܬܪܝܢܐ ؟

٣. ܐܝܟܢܐ ܚܕ ܬܪ̈ܝܢ ܡܠܘܐ ܕܣܕܪܐ ܬܪܝܢܐ ܐܘ ܡܠܘܐ ܕܣܕܪܐ ܫܬܝܬܝܐ ؟

٤. ܐܝܢܐ ܒܟܠܗ ܕܣܕܪܐ ܠܡܢܝܢܐ ܕܡܠܘܐ ܡܫܘܚܬܐ ؟

* * * * *

ܕܘܪܫܐ

١ ) ܐܣܟܡܐ ܡܚܘܝܐ ܠܟܠ ܫܒܬܐ ܡܢܝܢܐ ܕܬܠܡܝܕܐ ܒܟܠ ܣܕܪܐ ܡܕܪܫܬܐ ܡܦܘܠܓܐ ܠܫܬܐ ܣܕܪܐ .

ܦܢܝ ܠܫܘܐܠܐ ܕܐܬܝ :

١ . ܟܡܐ ܝܠܗ ܡܢܝܢܐ ܕܝܠܘܦܐ ܒܣܕܪܐ ܪܒܝܥܝܐ ؟

٢ . ܟܡܐ ܝܠܗ ܡܢܝܢܐ ܕܝܠܘܦܐ ܒܣܕܪܐ ܩܕܡܝܐ ؟

٣ . ܟܡܐ ܐ ܝܠܗ ܦܘܪܫܢܐ ܒܝܢ ܡܢܝܢܐ ܕܝܠܘܦܐ ܒܣܕܪܐ ܩܕܡܝܐ ܘܫܬܝܬܝܐ ؟

٤ . ܟܡܐ ܝܠܗ ܡܢܝܢܐ ܕܝܠܘܦܐ ܕܡܕܪܫܬܐ ؟

٥ . ܟܡܐ ܝܠܗ ܦܘܫܐ ܕܡܢܝܢܐ ܕܝܠܘܦܐ ܕܣܕܪܐ ܬܠܝܬܝܐ ܠܡܢܝܢܐ ܕܝܠܘܦܐ ܕܣܕܪܐ ܚܡܝܫܝܐ ؟

٦ . ܟܡܐ ܝܠܗ ܡܢܝܢܐ ܕܝܠܘܦܐ ܒܣܕܪܐ ܬܪܝܢܐ ؟

٧ . ܟܡܐ ܐ ܝܠܗ ܦܘܫܐ ܕܡܢܝܢܐ ܕܝܠܘܦܐ ܕܣܕܪܐ ܫܬܝܬܝܐ ܠܡܢܝܢܐ ܕܝܠܘܦܐ ܕܣܕܪܐ ܩܕܡܝܐ ؟

| ٤٠ ، ٣٥ ، ٣٠ ، ٢٥ ، ٢٠ ، ١٥ ، ١٠ ، ٥ |
|---|
| ܢܦܠܐ ، ܡܬܦܠܚܢܐ ، ܣܚܝܐ |

٢ ) ܐܣܟܡܐ ܡܚܘܝܢܐ ܝܠܗ ܝܠܘܦܐ ܕܣܕܪܐ ܫܬܝܬܝܐ ܒܚܕܐ ܡܕܪܫܬܐ ܘܦܠܚܘܬܗܘܢ ܒܟܘܫܪܐ ܠܐܘܢܝ . ܢܦܠܐ ܡܬܦܠܚܢܐ ܣܚܝܐ

ܚܘܪ ܠܐܣܟܡܐ ܘܦܢܝ ܠܐܬܝ ܕܫܘܐܠܘܗܝ ܠܗ ܟܘܫܪܐ ؟

١. ܟܡܐ ܝܠܗ ܡܢܝܢܐ ܕܝܠܘܦܐ ؟

٢. ܟܡܐ ܝܠܘܦܐ ܣܚܝܢܗܘܢ ܒܟܘܫܪܐ ܬܘܠܡܢܐ ؟

٣. ܟܡܐ ܝܠܘܦܐ ܗܘܐܠܗܘܢ ܡܬܦܠܚܢܐ ܒܟܘܫܪܐ ܬܘܠܡܢܐ ؟

٤. ܟܡܐ ܝܠܘܦܐ ܐܝܬ ܢܦܠܐ ܒܣܕܪܐ ܫܬܝܬܝܐ ؟

* ________ ______________________ *

## ٨ . ٢ ܡܨܥܝܘܬ ܫܘܝܬܐ

ܐܝܟ ܕܝܕܝܥܐ ܡܨܥܝܘܬ ܟܕܝܢܐ ܡܢ ܫܒܝܠܐ ܕܫܘܘܬ. ܘܗܘ ܕܫܘܩܠ ܠܗ ܦܫܝܛܐ
ܝܠܦܐ ܡܫܟܚܠܗ ܡܢ ܕܝܕܥܬܐ ܕܐܝܬܝܬܐ ܕܠܝܬ ܠܗܘܢ ܡܘܬܒܢܐ ، ܐܢ ܐܡܪܚ ܚܕ
ܠܗܘܢ ܫܒܥܐ ܕܡܨܥܝܘܬ ܕܪܓܬܐ ܠܬܪܬܐ ܒܡܫܡܫܘܬܐ ܗܘܝܐ ٧٥ ܐܗܐ
ܡܨܥܝܘܬ ܒܝܘܩܠ ܠܗܘܢ ܦܫܝܛܐ ܥܠ ܚܘܪܐ ܕܠܘܦܐ ܒܡܫܡܫܘܬܐ .
ܘܐܢ ܐܡܪܚ ܗܘ ܠܗܘܢ ܕܡܨܥܝܘܬ ܦܪܫܢܬܐ ܠܬܘܡܬܐ ܕܫܢܬ ܥܒܪܬܐ ܗܘܐ
٤٠ ܕܝܘܡܐ ܐܢܐ ܒܡܫܠܡ ܦܫܝܛܐ ܥܠ ܦܘܫܢܘ ܒܡܫܡܫܐ ܕܫܢܬܐ ܕܠܐ ܕܪܓܬܐ
ܠܬܘܡܬܐ ܕܟܠ ܦܪܫܐ ܡܢ ܦܪܫܢ ܕܫܢܬܐ .

ܬܘܦܣܐ ( ١ ) :

ܕܪܓܐ ܕܝܘܠܦܢ ܒܡܫܡܫܘܬܐ ܒܦܪܫܐ ܕܐܪܙ ٨٠ ܕܪܓܐ ܘܒܦܪܫܐ ܕܝܢܫܐ ٧٦
ܘܒܦܪܫܐ ܕܐܢܐ ٩٠ ، ܒܡܘ ܐܗܐ ܡܘܢܝܐ ܕܕܪܓܐ ܒܬܠܬܐ ܦܪܫܐ .

$$٨٠ + ٧٦ + ٩٠ = ٢٤٦$$

$$٢٤٦ \div ٣ = ٨٢$$

ܕܪܓܐ ٨٢ ܝܠܗ ܡܨܥܝܘܬ ܕܪܓܐ ٨٠ ، ٧٦ ، ٩٠ ܘܐܝܟ ܡܕܝܢܐ ܡܚܘܕܝܢ
ܡܨܥܝܘܬ ܫܘܝܬܐ ܠܐܢܝ ܡܢܝܢܐ .

ܬܘܦܣܐ ( ٢ ) :

ܡܛܝܠܗ ܕܪܫܬܐ ܡܫܬܠܦܐ ܩܘܪܒܢܘܬܗ ܒܡ ܝܘܡܐ ܠܐܚܪܢܐ ܡܘܪܒܘܬܐ
٢٩٥ ܟܡ ܒܡܫܡܫܐ ٥ ܫܢܝܐ . ܟܡܐ ܝܠܗ ܡܨܥܝܘܬ ܩܘܪܒܢܘܬܗ ؟
ܡܨܥܝܘܬ ܩܘܪܒܢܐ = ٢٩٥ ÷ ٥ = ٥٩ ܟܡ ܒܫܢܬܐ .

$$\therefore \text{ܡܨܥܝܘܬ ܫܘܝܬܐ} = \frac{\text{ܡܘܢܝܐ ܕܡܢܝܢܐ}}{\text{ܡܢܝܢܐ ܕܡܢܝܢܐ}}$$

ܡܘܬܠܐ ( ٣ ) :

ܐܫܟܚ ܡܨܥܝܘܬܐ ܚܘܫܒܢܝܬܐ ܠܡܢܝܢܐ :

٩٨ ، ٩٩ ، ١٠٠ ، ١٠٣

ܦܘܢܝܐ :

٩٨ + ٩٩ + ١٠٠ + ١٠٣ = ٤٠٠

ܘܡܢ ܡܢܝܢܐ ܕܡܢܝܢܐ ܝܠܗ ٤

ܡܨܥܝܘܬܐ ܚܘܫܒܢܝܬܐ ܠܟܘܢܫܐ = ٤٠٠ ÷ ٤ = ١٠٠

ܡܠܒܫܢܘܬܐ :

( ١ ) ܐܢ ܡܫܚܠܦܝܢ ܡܨܥܝܘܬܐ ١٠٠ ܚܘܠܦ ܟܠ ܡܢܝܢܐ ܡܢ ܡܢܝܢܐ ܚܣܝܪܐ ܠܐ ܫܚܠܦ ܟܘܢܫܐ ܕܡܢܝܢܐ .

١٠٠ + ١٠٠ + ١٠٠ + ١٠٠ = ٤٠٠

( ٢ ) ܡܨܥܝܘܬܐ ١٠٠ ܪܒ ܘܙܥܘܪܐ ܝܠܗ ܡܢ ܡܢܝܢܐ ܪܒ ܙܥܘܪܐ ܘܝܠܗ ܪܘܘ ܝܬܝܪܐ ܪܒ ܙܥܘܪܐ ܡܢ ܡܢܝܢܐ ܪܒ ܘܙܥܘܪܐ .

( ٣ ) ܐܢ ܡܫܟܚܝܢ ܠܦܘܩܐ ܕܡܨܥܝܘܬܐ ܒܡܢܝܢܐ ܪܒ ܗܘܐ ܦܠܛܐ ܟܘܢܫܐ ܕܐܢܫ ܡܢܝܢܐ .

ܡܘܬܠܐ ( ٤ ) :

ܐܢ ܡܫܟܚܝܢ ܕܡܨܥܝܘܬܐ ܚܘܫܒܢܝܬܐ ܠܐܪܒܥܐ ܡܢܝܢܐ ܝܠܗ ٣٥ ܘܬܠܬܐ ܡܢܝܢܐ ܝܢܐ ٣١ ، ٢٤ ، ٤٢ ܡܘܢ ܝܠܗ ܡܢܝܢܐ ܕܐܪܒܥܐ ؟

ܦܘܢܝܐ :

ܡܢ ܡܢܝܢܐ ܕܡܢܝܢܐ = ٤ ܘܡܨܥܝܘܬܐ ܚܘܫܒܢܝܬܐ = ٣٥

ܟܘܢܫܐ ܕܡܢܝܢܐ = ٣٥ + ٣٥ + ٣٥ + ٣٥

= ١٤٠

٣١ + ٢٤ + ٤٢ = ٧٩ ܟܘܢܫܐ ܕܬܠܬܐ ܡܢܝܢܐ

١٤٠ − ٩٧ = ٤٣ ܡܢܝܢܐ ܪܒܝܥܝܐ

* * * * *

## ܕܘܪܫܐ ( ٨ ـ ١ )

١ ـ ܐܫܟܚ ܠܡܨܥܝܘܬܐ ܚܘܫܒܢܝܐ ܠܐܣܛܘܟܣܐ ܕܟܠ ܚܘܙܒܬܐ ܡܢ
ܚܘܙܒܬܐ ܡܢܝܢܐ ܕܐܬܝ :

ܐ = ( ١٢ ، ١٧ ، ٢٤ ، ٣١ )

ܒ = ( ٧٢ ، ٧٨ ، ٨٤ ، ٩٠ )

ܓ = ( ٢٣ ، ٣٧ ، ٢٨ ، ٩٠ ، ٦٦ ، ٧٠ ، ٤٣ ، ٣٥ )

٢ ـ ܡܥܡܠܢܐ ܡܛܟܣܬܐ ܕܟܬܒܐ ܒܚܕ ܝܠܦܢܐ ܕܘܪܫܐ ܘܠܡܨܥܝܢܐ
ܕܫܢܬܐ ܗܘܝܐ ، ܘܡܢܝܢܐ ܕܡܣܦܪܐ ܗܘܘ ܐܝܟ ܕܐܬܐ :
ܗܘܐ ܒܩܘܡܝܐ ١٤٠٠ ܡܣܦܪܐ . ܗܘܐ ܒܬܪܝܢܐ ١٦٠٤ ܡܣܦܪܐ ، ܗܘܐ
ܒܬܠܝܬܝܐ ١٧٢٤ ܡܣܦܪܐ . ܟܡܐ ܝܠܗ ܡܨܥܝܘܬܐ ܡܣܦܪܐ ܒܚܕ ܗܘܐ ؟

٣ ـ ܨܪܘܦܐ ܝܠܗܘܢ ܒܚܘܫܒܐ ܗܘܝܐ ܢܡܘܣܐ ٣٥٠ ، ٤٥٠ ، ٥٠٠ ، ٤٠٠ ،
٣٠٠ ܦܠܘܣܐ ܢܡܘܣܝܐ . ܡܐ ܡܨܥܝܘܬܐ ܢܦܩܬܗ ܗܘܝܐ ؟

٤ ـ ܡܬܝܠܗ ܪܘܡܐ ܕܬܠܬܐ ܒܩܘܡܝܬܐ ٣٢ ܣܡ ܘܕܬܠܬܐ ܒܬܪܝܬܐ ٤٨
ܣܡ ܘܕܬܠܬܐ ܒܬܠܝܬܝܬܐ ٥٢ ܣܡ . ܟܡܐ ܝܠܗ ܡܨܥܝܘܬܐ ܕܪܘܡܐ ܕܗܘܢ
ܕܬܠܬܐ ؟

٥ ـ ܡܢܝܢܐ ܝܠܗܘܢ ܒܪܘܪܐ ܕܚܘܡܘܬܐ ٨١ ܕܪܓܐ ܐܝܟ ܡܨܥܝܘܬܐ ܠܬܠܬܐ
ܝܘܡܐ ܘܡܢܝܢܐ ܗܘܐ ܒܗ ܒܝܘܡܐ ܕܝܘܡܐ ܩܘܡܝܐ ٩٠ ܕܪܓܐ ܘܒܗ
ܒܝܘܡܐ ܕܝܘܡܐ ܬܪܝܢܐ ٧٥ ܕܪܓܐ . ܟܡܐ ܝܠܗ ܕܪܓܐ ܕܒܝܘܡܐ ܕܝܘܡܐ
ܬܠܝܬܝܐ ؟

٦ ـ ܒܣܘܦܠܗܘܢ ܬܠܬܐ ܦܪܘܣܐ ܒܫܢܬܐ ܘܦܪܢܣܗ ܒܩܘܡܝܐ ٥٥٠ ܕܝܢܪܐ
ܘܦܪܢܣܗ ܬܪܝܢܐ ٤٨٥ ܕܝܢܪܐ ܘܦܪܢܣܗ ܬܠܝܬܝܐ ٥٢٥ ܕܝܢܪܐ . ܒܟܠܗ
ܗܘ ܪܒܝܥܝܐ ܕܫܢܬܐ ܝܗܒܗ ܡܟܠܠܗܘܢ ، ܒܫܪܟܐ ܕܦܪܢܣ ܡܨܥܝܘܬܐ ܡܢ
ܕܦܪܢܣܗܘܢ ، ܐܝܟ ܬܠܬܐ . ܟܡܐ ܕܝܢܪܐ ܦܪܢܣܗ ؟

٧ . ܡܳܢܳܐ ܡܶܨܥܳܝܽܘܬ݂ ܕܡܶܢܝܳܢܳܐ ܕܫܰܥ̈ܬ݂ܳܐ ܒܫܰܒܬ݂ܳܐ ܠܟܽܠ ؟

| ܝܘܡܐ | ܚܕܒܫܒܐ | ܬܪܝܢܒܫܒܐ | ܬܠܬܒܫܒܐ | ܐܪܒܥܒܫܒܐ | ܚܡܫܒܫܒܐ | ܥܪܘܒܬܐ | ܫܒܬܐ |
|---|---|---|---|---|---|---|---|
| ܡܢܝܢܐ ܕܫܥܐ | ٣٠ | ٢٥ | ٢٢ | ٢٠ | ٢٥ | ٣٠ | ٢٧ |

٨ . ܗܳܠܶܝܢ ܢܽܘܦ̈ܩܳܐ ܠܬܰܠܡܺܝܕܳܐ ܕܢܣܰܒ ܠܗ ܒܚܽܘܫܒܳܢܳܐ ܕܦܶܠܓܽܘܬ݂ ܫܢ̈ܬܳܐ :

ܬܰܘܕܺܝܬ݂ܳܐ ٧٠

ܠܶܫܳܢܳܐ ܐܳܬ݂ܽܘܪܳܝܳܐ ٩٤

ܠܶܫܳܢܳܐ ܐܶܢܓܠܺܝܙܳܝܳܐ ٨٥

ܠܶܫܳܢܳܐ ܥܰܪܒܳܝܳܐ ٦٥

ܡܫܘܚܬܐ ٧٢

ܬܰܫܥܺܝܬ݂ܳܐ ٦٨

ܓܽܘܓܪܰܦܺܝܰܐ ٨٣

ܟܺܝܡܺܝܰܐ ٨١

ܝܺܕܰܥܬ݂ܳܐ ܐܢܫܝܬܐ ٩٢

ܪܫܘܡܬܐ ٩٠

ܐܣܝܘܬܐ ٩٠

ܝܺܕܰܥܬ݂ܳܐ ܟܝܢܝܬܐ ٨٢

ܗܘܓܝܬܐ ٩٤

ܪܗܛܘܬܐ ٨١

ܡܳܢܳܐ ܡܶܨܥܳܝܽܘܬ݂ ܕܪܰܓܬ݂ܶܗ ܒܚܽܘܫܒܳܢܳܐ ܕܦܶܠܓܽܘܬ݂ ܫܢ̈ܬܳܐ ؟

# ܚܒܝܫܬܐ

## ܦܣܘܩܐ ܩܕܡܝܐ

### ܚܘܫܒܢ̈ܬܐ ܘܫܘܟܕܢܘ̈ܬܐ



## ܦܣܘܩܐ ܬܪܝܢܐ

### ܫܘܟܕܢܘܬܐ ܥܠ ܡܢܝܢܐ ܟܝܢܝܐ



## ܦܣܘܩܐ ܬܠܝܬܝܐ

### ܦܣܩܐ ܟܝܢܝܐ ܘܦܣܩܐ ܥܣܪܢܝܐ

## ܦܣܘܩܐ ܪܒܝܥܝܐ

### ܚܙܘܬܐ

٤ - ١ ܢܘܗܪܐ ܚܙܝܐ

٤ - ٢ ܙܘܝܬܐ ܕܡܦܢܝܬܐ

٤ - ٣ ܙܘܝܬܐ ܡܬܚܠܦܢܐ

٤ - ٤ ܐܣܟܡܐ ܕܥܝܢܐ ܘܡܢܘܥܐ ܕܡܬܘܚܝܬܐ
ܕܙܘܝܬܐ ܠܘܬ ܕܐܣܟܡܐ ܕܥܝܢܐ

٤ - ٥ ܬܪܝܢ ܚܙܘܬܢܝܐ

## ܦܣܘܩܐ ܚܡܝܫܝܐ

### ܓܫܡܐ ܘܓܫܡܘܬܐ

٥ - ١ ܓܫܡܐ

٥ - ٢ ܓܫܡܘܬܐ

٥ - ٣ ܡܪܕܝܬܐ ܕܪܘܡܐ

٥ - ٤ ܦܠܓܘܬܐ ܓܫܡܢܝܬܐ

## ܦܣܘܩܐ ܫܬܝܬܝܐ

### ܐܣܟܡܐ ܚܙܝܐ

٦ - ١ ܡܬܚ ܐܠܦܐ

٦ - ٢ ܕܡܘܬ ܡܬܠܬܐ

٦ - ٣ ܚܘܝܐ ܕܡܬܠܬܐ

٦ - ٤ ܬܚܘܡܬܐ ܕܦܢܝܬܐ ܕܡܬܠܬܐ

٦ - ٥ ܚܘܕܪܐ

٦ - ٦ ܬܚܘܡܬܐ ܕܦܢܝܬܐ ܚܘܕܪܢܝܬܐ

## ܦܣܘܩܐ ܫܒܝܥܝܐ

### ܡܓܢܛܐ

٧ - ١ ܡܬܚ ܬܚܝܐ ܚܙܘܬܢܝܐ ( ܕܡܘܬ ܩܘܦܣܐ )

٧ - ٢ ܩܘܦܣܐ

٧ - ٣ ܚܝܠܘܬܐ ܕܡܓܢܛܐ

٧ ـ ٤ ܡܫܘܚܬܐ ܕܡܝ̈ܐ

٧ ـ ٥ ܟܝܠܐ ܡܫܘܚܬܐ ܠܡܝ̈ܐ

٧ ـ ٦ ܚܠܒܐ ܕܡܥܒܕ ܥܠܝܐ ܗܕܘܪܝܐ

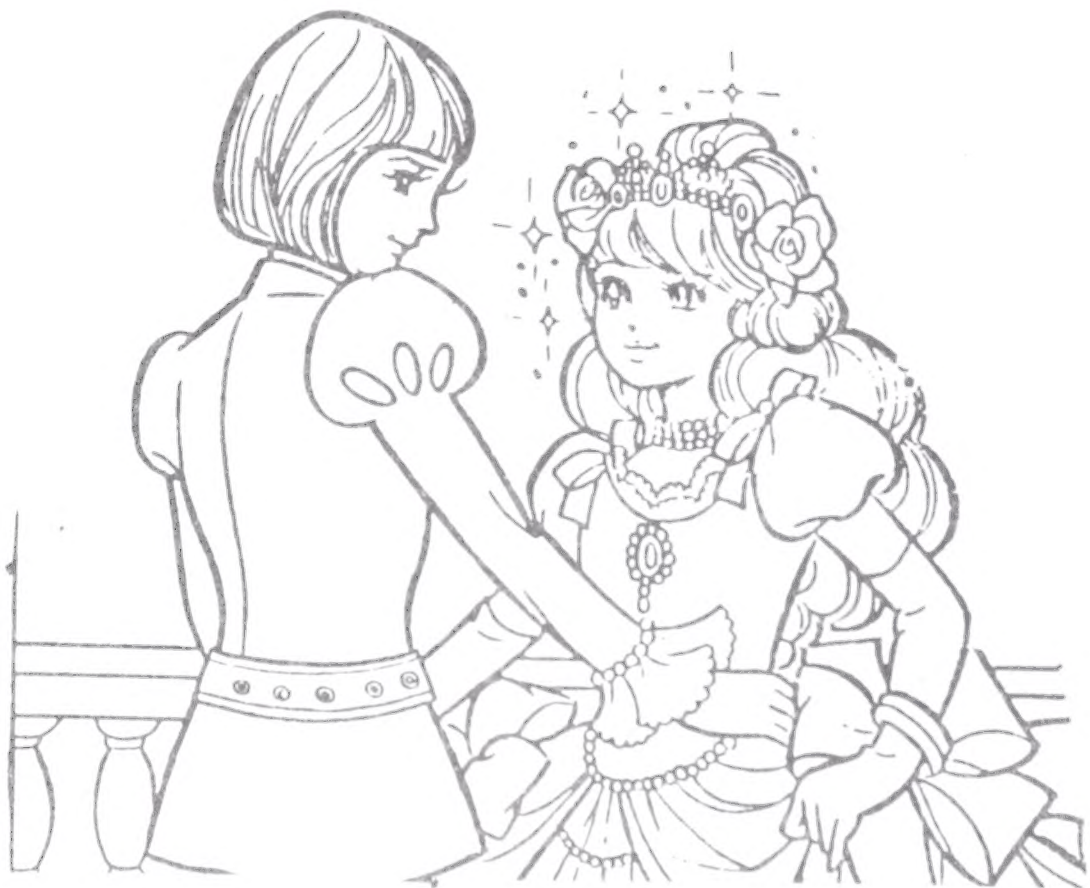
٧ ـ ٧ ܚܠܒܐ ܕܥܘܙܐ

## ܦܫܘܛܐ ܕܡܝ̈ܐ

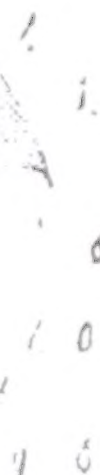
## ܡܢܘܬܐ

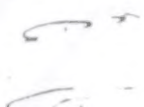
٨ ـ ١ ܢܘܗܪܐ ܕܫܡܫܐ

٨ ـ ٢ ܡܝܬܘܬ ܚܘܪ̈ܒܐ



ܢܫܒܬܐ ܕܦܓܥܬܐ ܡܢ ܩܪܬܐ ܘܠܒܫܬܐ ܕܠܒܘܫܐ
ܒܫܘܬܐ ܐܝܟ ܢܫܒܬܐ ܕܝܘ ܠܟܠ̈ܢ ܕܐܘܪ̈ܚܬܐ ܕܢܫ̈ܡܬܐ





هەرێمی کوردستانی عیراق

وەزارەتی پەروەردە

| ٤ | ٣ | ٢ | ١ | ٠ | + |
|---|---|---|---|---|---|
| ٤ | ٣ | ٢ | ١ | ٠ | ٠ |
| ٥ | ٤ | ٣ | ٢ | ١ | ١ |
| ٦ | ٥ | ٤ | ٣ | ٢ | ٢ |
| ٧ | ٦ | ٥ | ٤ | ٣ | ٣ |
| ٨ | ٧ | ٦ | ٥ | ٤ | ٤ |

| ٤ | ٣ | ٢ | ١ | ٠ | − |
|---|---|---|---|---|---|
| ١ | ٢ | ٣ | ٤ | ٥ | ٥ |
| ٢ | ٣ | ٤ | ٥ | ٦ | ٦ |
| ٣ | ٤ | ٥ | ٦ | ٧ | ٧ |
| ٤ | ٥ | ٦ | ٧ | ٨ | ٨ |
| ٥ | ٦ | ٧ | ٨ | ٩ | ٩ |
|  | ١٠ | + | ٠ | = | ١٠ |
|  | ١٠ | + | ١ | = | ١١ |
|  | ١٠ | + | ٢ | = | ١٢ |